



THE AMATEUR RADIOWORLD

Vol. II, No. 4

Legazpi City, Philippines

May, 1984

ISSN—0115—8189

FIELD DAY



DXing IN DU-LAND

₱ 8.00

Since over 20 years, high quality HOXIN antennas were loved universally in the world. The quality is fully guaranteed by the engineers having profound knowledge and long experience. Enjoy using corrosion-free, solid HOXIN antennas.

GPV-5 (144MHz)

6.5dB, $5/8\lambda \times 2$, Colinear type ground plane antenna

Extremely low loss, DC grounded for lightning protection

Length: 3,100mm/mm, Weight: 1.5kg

36-2F (144MHz)

$1/4\lambda$, Omni-directional ground plane antenna

All weather proof, Max. operation power: 200W PEP, Element length: 500mm

Weight: 850g

36-6F is for 50MHz, 36-10F is for 27~28MHz and 36-4F is for 80MHz band.

GPV-720 (144 & 430MHz)

Unique 2 bands ground plane.

DC ground system protects equipment from lightning.

Gain: 144MHz ~ 2.8dB, 430MHz ~ 5.7dB

Overall height: 1,100mm, Weight: 895g

GDX-1 (80~480MHz)

DISCONE, Covers extremely wide band.

Having the features of low dispersion angle, this is idealistic for DX communication like aeronautic, military field, as well as for "watch" antenna.

Height: 1,000mm, Weight: 2.6kg

GDX-2 is for 50~480MHz

HF5DX (HF 5 band)

Covers five HF bands, 3.5, 7, 14, 21 and 28MHz.

Using one trap only, it is compactly designed for installation to the narrow space.

Overall height: 6,600mm, Weight: 4.7kg

HF-5 is self stand type without radials.

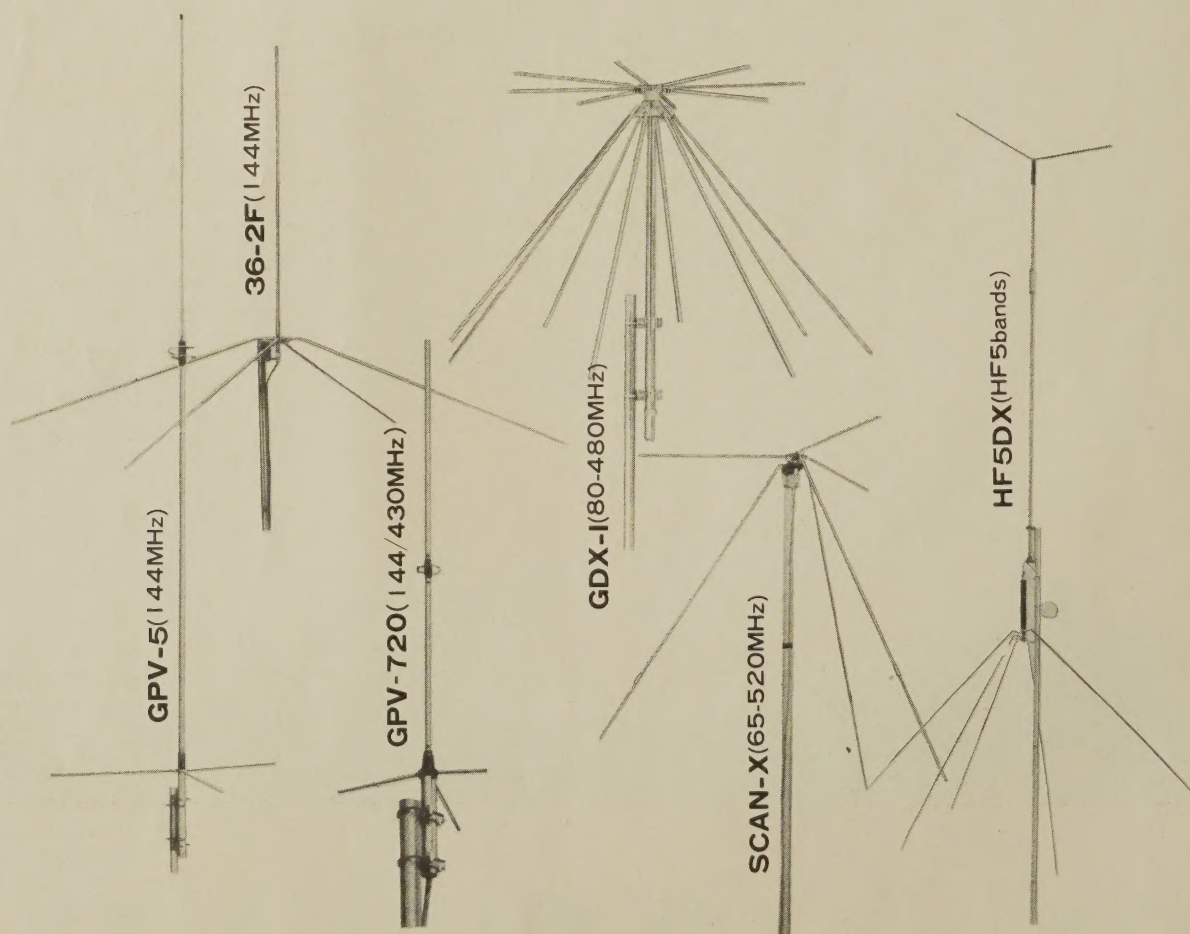
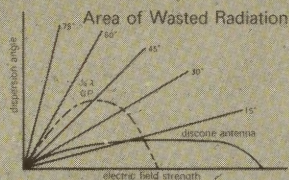
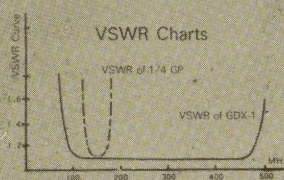
HF-5R is radials only.

SCAN-X (65~520MHz)

Discone type scanner use antenna

Designed for receiving wide band for FM, TV, VHF/UHF

Option: Additional use of Duplexer (DPX-1) is available for using both radio and scanner.



THIS ISSUE

May is the heart of summer. That is if summer has an anatomy so humanlike. Anyhow, if there is anything in summer that's more fully charged, in a manner of speaking, this month is definitely "it."

We took the liberty to so state this for isn't it that it is in May that early mornings, if one is observant enough, are suffused with the fragrance of flowers — sampaguita...jasmin — when high noons become even more intense with golden showers, cherry blossoms, and early evenings drown with cicadas' droning our memories to ages past — we remember the rites by the rivers, the barn dances.

For hams in DU-land, like any other somewhere in the tropics, May offers a break from daily grinds: This becomes a season for field days — and there is no need to enumerate what one does here — sunspot cycle favorable or not. So it comes that hams in District 4 of this tropical DU-land plunged into the very core of summer's heart with the first ever Invitational Field Day hereabout. Writer *Frank Sallena* kept an account of this memorable happening (page 12). District 4 was not alone though in staging a similar event. Frank Sallena wanted so much to render a similar account on Ham X's Field Day in Mindanao. But because scrimping is justifiably the rule of the day all he could manage was an abbreviated news statement on the matter (News Monitor, page 34). He did the same to PARA's HF DX project.

Because every ham appears to be "hot" for some foreign contacts during this period, the *TAR Research Group* somehow managed to come out with compendious items on DXing. **Some Basics of Effective DXing** (page 18) delivers some fundamentals on the game. For the avant garde, RTTY might be their thing (page 18) and we find on the same page a challenge for the lion-hearted: **How About A DXCC/WAS Using QRP?**

Still on DXing, **The State of DXing in DU-Land After 67 Years** (page 13) renders a poignant item on the development of the art as seen by two respected DXers. *Engr. Juan Edgardo Y. Bongalon's* (DW4BE) story is his first contribution.

This issue concludes Associate Editor *Alfie Camua-Sy*'s **The Quest for Unity Goes On** (page 8). Here he reveals the existence of IARAC's predecessor, the similarly NTC created ARAC. Also concluded in this issue is the long running **Peaks in the Waves of Wireless Progress** (page 23). TAR ends the account in the year 1930. The Research Group hopes to complete another series which would somehow pause with the ever baffling "miracle chip."

There's a lot more inside. Please read on. By the way, we hope that you, dear reader, did not miss the summer sun, sea and sand. Without these, your May may have been just one of those sweltering days aggravated by the fever generated by the Batasan Election.

A pleasurable reading and 73.

COVER: The temples of the Aztecs, Daniken contends, may be more than a place of worship. They may have served as a means of communications to beings beyond. Julio Viernes drew forth from the form and content of the temple to depict the intent of Field Day: the sun and communications; melding the ages with the future — the temple's perspective, mysteriously, is akin to modern telecommunication's heart — the chips. Paul V. Nar's drawing board gave it the final shape.♦

REGULARS

- 4 Band to Band *Susan S. Bongalon, DW4AN*
- 5 P.O. Box 76
- 10 Eyeball *Gerry Y. Bongalon, DW4AT*
- 16 Hamsense *Alfie Camua-Sy*
- 22 Essay *Julio R. Viernes*
- 28 Wavescan *Luis Sevilla, SWL*
- 31 Advisor *Engr. Cielito Vita*
- 34 News Monitor
- 38 Interview

FEATURES

- 8 The Quest for Unity Goes On (Conclusion)
Alfie Camua-Sy
- 12 The BARRL's First Invitational Field Day
Frank Sallena
- 13 The State of DXing in DU-Land After 67 Years
Engr. Juan Edgardo Y. Bongalon, DW4BE
- 14 Solving the Riddle of the Waves
Felipe Jose B. Peralta
- 17 The Life and Times of a Consummate Ham
Pacific Friends
- 18 Some Basics of Effective DXing
TAR Research Group
- 23 Peaks in the Waves of Wireless Progress
(Last of a Series)
- 27 QSK *W4UQ*

"Whatever our government does cannot be as effective without the support of private sectors (like the radio clubs) — we need close coordination. There's really a need for a closer working relationship between the government and private sectors in order that we may achieve the objectives we mutually share."

**— Antonio C. Barreiro
Deputy Commissioner
NTC**

BAND **TO** BAND

Well, hams were not the only ones who had a field day this May.

May 14 was a denouement for days of promises that flew wildly about. Promises of serving the people if ever given the trust, once more, as if fourteen years of representing the people's interest were too short a time to prove true to the trust which have been "given" voluntarily or otherwise. Promises of extricating the nation from the quagmire it is presently in. Promises that can put any holy redeemer to tears.

This, too, was a month of self-doubts and self-pity and self-assertion. The citizen had a field day — knowing himself better, standing on his own, facing up to the burdens of maintaining a blame-free conscience "when the time comes."

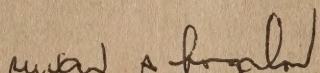
The ham both as a citizen, had such field days.

His field day as a ham came to be a break from the hustles of running routines five days a week, a little over eight hours a day. As a citizen, he had a field day exercising an inalienable right confronted by the pressures of personal loyalties; improbities which are trademarks of such an exercise; his honest personal/familial/philosophical principles against the forces that subliminally seduce the mind with professional precision.

Such field days!

*These must be over by now. Some scars might have been left as one accidentally cut a finger brewing a quagi during a fun-filled contest. Losing a CW-copying contest must have caused some sleepless nights. But the thoughts of **hamraderie**, as our Associate Editor Alfie Camua-Sy puts it, leave some pleasant aftertaste, so to speak. On the other hand, the other field day remains to be so similar to a case of bad hang over. After grappling with the issues that plagued everyone (I'd like to think everyone was affected) even before anyone had a choice of going that way or this way or merely enjoying the view from a high fence, and even after a decision was already made and delivered; we find ourselves still reeling from its effect — uncertainty! Meanwhile, toasts continue to make everybody heady.*

Such field days! What month has such magic?


SUSAN S. BONGALON
Publisher-Editor

THE AMATEUR RADIOWORLD is a monthly magazine published in Legazpi City for the advancement of amateurism. Editorial and business offices are located at Room 24, PVLB Building 1, Peñaranda Street, Legazpi City, Tel. Nos. 35-36, 21-43 and 24-03.
Metro Manila Bureau Office: No. 16 Scout Tuazon Street, Quezon City, Philippines, Tel. No. 97-43-50.

THE AMATEUR RADIOWORLD accepts contributions which must be type-written, double-spaced and with self-addressed, stamped envelope so that they can be returned to the sender in case they are not accepted for publication. The Editor does not assume responsibility for damage to or loss of unsolicited manuscripts or photographs.

Entered as Second Class Mail at the Legazpi City Post Office on October 11, 1983.

Advertising rates furnished upon request.



SUSAN S. BONGALON, DW4AN
Publisher-Editor

EDITORIAL STAFF

ZOILO CHAN
Executive Editor

GERRY Y. BONGALON, DW4AT
ALFIE CAMUA-SY
JULIO R. VIERNES
Associate Editors

CONTRIBUTING EDITORS

LUIS SEVILLA
Shortwave/Broadcast

RALPH C. AZADA, DU1RFA
DX/Propagation

Metro Manila Bureau
Rod del Rosario, DU1ROD
Chief

ART/PHOTOGRAPHY
Paul V. Nar

CORRESPONDENTS

George Kintanar, DU1OP
Jose D. Tirona, DU1RB
Booby M. Lim, DU1LB
Butch C. Braga, DU1PAR
Sonny D. Jamora, DU1SON
Romy Perez, DU1XU
Raffy Soliongco, DU1RFS
Al Sario, DU1UL
Bobby Sario, DU1UO
Alfredo Y. Bongalon, DW4BH
Engr. Juan Edgardo Y. Bongalon, DW4BE
Romy B. Reyes, DW4AK
Frank P. Sallena
Felipe Jose B. Peralta

TECHNICAL CONSULTANTS

Raul Duque, DU1QUE
Engr. Arsenio M. Ignacio, DU3AI
Engr. Guddy L. Ocol, DU4GLO
Dr. Clodualdo Leocadio, Jr. DV4AA
Dr. Jose Tolentino, DV4AD
Bobby Garcia, DU6BG

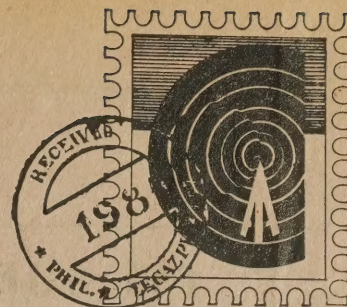
BUSINESS STAFF

ROGER YAP BONGALON, DW4BJ
Business Manager

PRUDENCE SARTE BONGALON
Circulation Manager

F.M. SIDDAYAO & ASS., CPAs
Accountant

P.O. Box 76



A Votre Sante!

I am praying for the success and long life of *The Amateur Radioworld* and I am always anxiously waiting for its new issue.

Please be assured of my continuing cooperation and fervent wish for a bigger and better *The Amateur Radioworld*.

Tito A. Yotoko, DU6TY
President
Capiz Radio League, Inc.
BSP Bldg., Fuentes Drive,
Roxas City, 5701

I find your magazine very informative and interesting.

CONGRATULATIONS AND
MORE POWER.

Pedro A. Aguinaldo, Jr., DU3DO
89 T. Bugallon St.,
Aurora Hill
Baguio City 0201

I received *The Amateur Radioworld* yesterday (May 1). I gave a copy to my friend VE7EWG who is in Osaka now. He said he will be writing you. We find the magazine worth reading.

By the way, I was in DU-land about three years ago and operated DX3UB. It was nice working with many DU stations.

Thank you and 73.

Yutaka Tanaka, JH3DPB
5-29 Ichi-bancho,
Koshien, Nishinomiya,
Hyogo 663 Japan

Thanks for sending me one copy of the April issue, one copy for March, one copy for February — each month — as I am a subscriber.

I would be more happy, however, if you had sent me 4 copies of the March issue as well as those of April and February because I subscribed and paid for 4 copies of each issue which I did receive the first few issues then all of a sudden one only.

This is an excellent magazine and

LETTERS TO THE EDITOR (P.O. BOX 76) should be addressed to THE AMATEUR RADIOWORLD, P.O. Box 76, Legazpi City, Albay, Philippines 4901 and should include the writer's full name, address. Letters may be edited for purposes of clarity of space.

the only one, really! so I send the extra copies to my friends overseas.

Any chance receiving the missing 3 copies for February, March and April? Or, even March and April, if not April alone will do.

Many thanks. Your April issue was received here May 10. It seems to be getting better — more news on the local scene. Very nice.

R. Myers
P.O. Box 1630
Manila

(There have been some miscommunication here, Mr. Myers. But our Circulation Section have taken upon itself to make corrections. Thank you for calling our attention. — Ed)

Knowing DU Hams Through TAR

I received two issues of *The Amateur Radioworld* from JH3DPB, the other day. I enjoyed reading them and learning a little about hamming in the Philippines. It seems like the kind of magazine which would encourage locals to try to get a license and get on the air to enjoy the benefits of amateur radio.

I am a visitor to Japan and I'm living in the Osaka area at present. Last week I wrote to the Radio Regulatory Bureau in Tokyo to try to get permission to operate while I'm here. Canada and Japan do not yet have reciprocal privileges but I understand that Canada does permit temporary operation by Japanese amateurs on a case-to-case basis. I'm hoping the Japanese government will follow the same line of reasoning.

Since I've been in Japan, Yutaka and JA3RMR, Aki, have been good hosts and shown me many interesting sights. I guess the most interesting are, of course, the radio stores with their excellent prices on all ham gears.

I received a letter from Mr. M. Saifud Dahar Shahid the other day. He is the president of the Bangladesh Amateur Radio League. Below is some information which you may or may not have:

"Since Bangladesh came into being in 1971 no amateur radio licenses have been issued. Only last year the Authority took policy decision to allow amateur radio activity in Bangladesh by Bangladeshi nationals only. Following the policy decision a few of the BARL members have applied for Amateur Licenses (including myself). The procedure of license issuing is lengthy and cumbersome. The applications need to be processed by several government ministries and agencies. It could take from 3 to 9 months to complete the processing."

Mr. Shahid also adds that further info on BARL has appeared in the April '84 issue of Radio Communication and May '84 73 Magazine.

I'm also keeping in touch with the Pakistan Amateur Radio Society since I worked in Pakistan from Oct. '82 to Oct. '83 and may go back later this year. AP2UR tells me that the society station is in the final stages of being setup and AP2ARS should be on the air soon if not already. Mr. Masayoshi Fujioka — JM1UXU, the Region III Secretary from JARL, was to stop off in Lahore for a visit on his return from the regional meeting in Italy last month.

One thing with regard to the magazine I wanted to mention, you quote the annual subscription rate as \$98 for foreign subscriptions. This is very high but I suppose a good portion of that has to be used to cover the mailing costs.

So I hope to soon be able to work a few DU stations on the air rather than just listening from this end.

73 for now.

Murray Lycan, VE7EWG
11-4 Okayamate-cho, Hirakata-shi,
Osaka-Fu, Japan 573

CLASSIFIED

FOR SALE

ELECTRONICS BOOKS/ PARTS/EQUIPMENT

WORLD SEMICONDUCTOR DIODE CROSS-INDEX & TECHNICAL DATA printed in Taiwan, 248-pages, brand new with plastic cover.

SOLID-STATE DESIGN FOR THE RADIO AMATEUR published by ARRL (USA) 256-pages with plastic cover and new.

LAFAYETTE model KT-223 Transistor Analyzer. This instrument is actually 5 test instruments-in-one. This unique unit is a transistor tester; signal generator; milliammeter; voltmeter and battery tester. Powered by 2 size "C" (medium) battery (not included). Made in USA with instruction manual, slightly used, in good condition.

HEATHKIT model "MOHICAN" GC-1A 10-transistor communication receiver. Frequency coverage is from 540-khz to 30-mHz in 5 bands. For 12VDC or 220VAC operation. Tunable BFO circuit for SSB signal reception. Made in USA with original instruction & service manual. Slide rule type dial with large, easy-to-read dial. Steel cabinet with carrying handle and whip antenna. Used but in good condition.

HALLICRAFTERS S-53A 8-tube communication receiver. 6BA6 RF amplifier; 6BA6 Mixer; 6BA6 IF; 6H6 Det/AVC; 6SC7 AF ampl/BFO; 6C4 Osc; 6K6/6V6 audio output; 5Y3 Rectifier. Tubes 6H6 and 5Y3 has been replaced with more efficient diodes. For SSB reception, a product detector stage is needed and easily added by utilizing the space occupied by 6H6 stage. Gray metal cabinet with hinged top cover. Made in USA. Frequency coverage is from .55-mhz to 30-mhz; 50-mhz to 54-mhz calibrated in 5-bands. For 110-volts AC only.

Four (4) pieces high-glazed porcelain stand-off insulators used in transmitter antenna output connections. Ribbed cone-shaped body, square base with 4 mounting holes on each corner. Long leakage path, low capacity and freedom from moisture absorption. Screw with nut on tip of cone. Height including screw is 5-inches. Size of base is 2-3/8 by 2-1/2. Made in USA by E.F. Johnson. Brand new.

Two (2) pieces ceramic socket (Mil spec no. 123-209-200/RCA UR-5424) to fit type 866, 866A, 866-AX, 866-B, 816, 836, 3B28; 4-pin heavy-duty rectifier tube socket. Heavy ceramic base with silver plated contacts. Made in USA by E. F. Johnson. Brand new.

Twelve (12) pieces screw type ceramic base socket (MOGUL type G2-3) will fit or accept Tungar/Gordos Argon/Mercury rectifier bulb such as: G-23, G-26, G-44, G-48, G-49, G-83, G-6314, G-6401, etc. Removed from cinema arc rectifier units. Good condition.

Two (2) pieces used Tungar bulbs type GORDOS 6401/G-83, rated at 15-amperes, 60-volts DC. Filament voltage is at 2.5 volts AC. Originally used in old-model battery chargers cinema arc rectifier units. All removed from reconditioned equipments. Require socket type MOGUL G2-3. Good condition and usable. Socket is not included.

Assorted printed circuit tube sockets for standard 7-pin and 9-pin tubes. Made in USA, brand new.

Home-made battery charger for 4-volt DC electronic photo flash battery (PIC and others). Primary is for 220-volt AC; secondary 4-volts DC terminated with terminal lugs for direct connection to battery terminals. All parts enclosed inside metal case, while the transformer is mounted outside (on top).

9-volt transistor battery charger and eliminator. Runs any 9-volt radio, cassette, etc. with converter. Doubles as a battery charger

(9-volts only) by using adaptor supplied. For 220-volt AC; same size as regular 9-volt rectangular transistor battery, such as: 2U6; 216; VS323; 006P; 1222; etc. Used, good condition.

Three (3) pieces 18-watts Universal Tube type output transformers. Primary 4K-14K ohms center-tap at 40-ma. Locally made by Triplex Electronics, brand new, in original box.

Home-made Capacitor Checker — exact copy of circuit used on Allied (US) Knight kit model 83Y119 Capacitor Checker. It's designed to test capacitors for shorts, or open circuits without disconnecting them from the circuit. These test can be made even though the capacitor is in parallel with a resistance as low as 50-ohms. Short circuit test up to 2000-mfd; open circuit test 20-pf or higher. Tubes complement: 6E5 as Magic Eye Indicator; 6C4 as Hartley Oscillator. With test lead, instruction manual, aluminum cabinet size: 4x5-1/2x4 For 220-volts AC.

Power transistor sockets for type TO-3 case power transistor like OC26; 2N255; 2SB449, etc. No need to solder directly to transistor terminals. With a socket installed, transistors easily removed without unsoldering - no mess, no waste of time. Made in USA, brand new, about 15 pieces still available.

Two (2) pieces 20-mfd at 600-volt can type electrolytic capacitor made in USA by Cornell Dubilier. Size: 1-5/16 x 4-3/4 height. Plug-in type and will fit any standard octal (8-pin*) tube socket. Brand new.

Four (4) pieces 2000-mfd at 15-volt can-type electrolytic capacitor made in USA by Sprague. Size: 1-5/16 dia. x 5" long. Plug-in type and will fit any standard octal (8-pin) tube socket. Brand new.

Three transistor experimenter's circuit board. This delightful and useful experimenter gadget should appeal to one and all. It is multi-functional and will perform the following by merely connecting

EXCHANGE

your telegraph key, speaker, mike and 9-volt battery to color-coded wires, you have your simple Morse code oscillator, AM voice broadcaster, sensitive AM radio receiver. Fully assembled, ready for use, with hook up instruction and diagram. A fantastic gadget, one which young and old experimenters will enjoy for hours. Made in Japan. All parts are mounted on a printed circuit board, like - 3 transistors; 2 miniature transformers; 1 oscillator coil; 1 tuning condenser; 1 rotary function switch; 1 antenna ferrite coil; assorted resistors, capacitors and a diode. Used in good condition.

with original instruction manual and cable. Used for a couple of times only and the unit is still very new, well kept inside a cabinet.

Assorted US, Japanese and European radio tubes — used, brand new mostly still in original box. No time to test, satisfaction guaranteed and the price is very low. 1-DAF41; 2-EABC80/6AK8; 1-EBC81/6BD7A; 2-EBF80/6N8; 2-EBF89/6DC8; 2-ECH42/6J7; 2-EF86/6CF8; 2-EL42; 1-EZ80/6V4; 2-UF89/12DA6; 2-OA2/6626; 2-OB2/VR105-MT; 1-5R4; 3-5U4; 3-5Y3; 5-6AC7;

- a) One (1) unit **HEAVY DUTY "PHIHONG"** Regulated dc power supply, Model: PP-1335
 - * input = 220vac 60 HZ
 - * output = 13.82vdc 35 amperes surge
 - * foldback current limiting
 - * short circuit reverse voltage protections
- b) **FURUNO-Rectifier Type SR-4A**
- c) **ATYA DC REGULATED POWER SUPPLY**
 - R12-12 Model/ 13.8 volts
 - Output = 12 amperes 150 watts
 - Input = 110-220 vac 50/60 HZ
 - Please contact: FRANK, Marz St., Old Albay District, Legazpi City, Tel. No. 25-66



DON'T GET THE MESSAGE CROSSED

have your copy of
THE AMATEUR RADIOWORLD
delivered to you regularly.

and up to 300-mhz on harmonics. Among the many features are the large easy-to-read dial marked at 455-khz; 4.5-mhz and 10.7-mhz; one audio frequency for amplitude modulation or external use; provision for crystal oscillator operation and coaxial output cable. Serves as a marker generator when used with a sweep generator in checking and aligning RF and IF circuits in TV and FM receivers. Frequency range is from 100-khz to 300-mhz calibrated in six bands. Crystal oscillator will accept any FT-243 crystals from 1-15 mhz. Power consumption is about 3-watts. For 220-volts AC only. Made in Japan,

+30 db. Slightly used and in good condition. Made in Japan.

Electrolytic capacitor — 13,500-mfd at 15VDC (20VDC surge) measures about 2"x4-3/4" — made by SANGAMO in USA, with screw terminals. Removed from surplus equipment.

CONTACT: Frank Sallena
c/o The Amateur Radioworld
Tel. Nos. 35-36, 25-66
Legazpi City

Electronic keyer, ₱500.00. Contact Rod del Rosario, 16 Scout Tuazon, Q.C., Tel. 97-43-50

CARS

neeler **INTERNATIONAL**
E TRUCK, Contact: Pru-
Tel. No. 21-43, Legazpi City

agen Beetle w/ brandnew
/tire/tinted/radio. Well kept
to appreciate, contact:
or Jun Tel. No. 32-75, Le-
City

WANTED TO BUY

IX-45 tubes; old tube sockets
able condensers; type 30, 31,
oes needed to reconstruct
and 1-V-2 receivers. Con-
george Francisco, Makati,
Manila, Tel. No. 87-40-31

FOR SALE/LEASE

LOT

Good for sugar plantation, etc. Very near Bisudeco Milling Factory Bula, Cam. Sur — 18 hectares plus. First come, first serve — **HURRY!** Contact: Frank Tel. No. 25-48/25-66 & 25-49, Legazpi City.

ADVERTISING RATES (CLASSIFIED EXCHANGE): ₱9.50 per line, ₱39.00 per column centimeter boxed ad. Special discount for long-running ads.

FOR SALE

ELECTRONICS BOOKS/ PARTS/EQUIPMENT

WORLD SEMICONDUCTOR DIODE CROSS-INDEX & TECHNICAL DATA printed in Taiwan, 248-pages, brand new with plastic cover.

SOLID-STATE DESIGN FOR THE RADIO AMATEUR published by ARRL (USA) 256-pages with plastic cover and new.

LAFAYETTE model KT-223 Transistor Analyzer. This instrument is actually 5 test instruments-in-one. This unique unit is a transistor tester; signal generator; milliammeter; voltmeter and battery tester. Powered by 2 size "C" (medium) battery (not included). Made in USA with instruction manual, slightly used, in good condition.

HEATHKIT model "MOHICAN" GC-1A 10-transistor communication receiver. Frequency coverage is from 540-khz to 30-mhz in 5 bands. For 12VDC or 220VAC operation. Tunable BFO circuit for SSB signal reception. Made in USA with original instruction & service manual. Slide rule type dial with large, easy-to-read dial. Steel cabinet with carrying handle and whip antenna. Used but in good condition.

HALLICRAFTERS S-53A 8-tube communication receiver. 6BA6 RF amplifier; 6BA6 Mixer; 6BA6 IF; 6H6 Det/AVC; 6SC7 AF ampl/BFO; 6C4 Osc; 6K6/6V6 audio output; 5Y3 Rectifier. Tubes 6H6 and 5Y3 has been replaced with more efficient diodes. For SSB reception, a product detector stage is needed and easily added by utilizing the space occupied by 6H6 stage. Gray metal cabinet with hinged top cover. Made in USA. Frequency coverage is from .55-mhz to 30-mhz; 50-mhz to 54-mhz calibrated in 5-bands. For 110-volts AC only.

Four (4) pieces high-glazed porcelain stand-off insulators used in transmitter antenna output connections. Ribbed cone-shaped body, square base with 4 mounting holes on each corner. Long leakage path, low capacity and freedom from moisture absorption. Screw with nut on tip of cone. Height including screw is 5-inches. Size of base is 2-3/8 by 2-1/4. Made in USA by E.F. Johnson. Brand new.

Two (2) pieces ceramic socket (Mil spec no. 123-209-200/RCA UR-5424) to fit type 866, 866A, 866-AX, 866-B, 816, 836, 3B28; 4-pin heavy-duty rectifier tube socket. Heavy ceramic base with silver plated contacts. Made in USA by E. F. Johnson. Brand new.

Twelve (12) pieces screw type ceramic base socket (MOGUL type G2-3) will fit or accept Tungar/Gordos Argon/Mercury rectifier bulb such as: G-23, G-26, G-44, G-48, G-49, G-83, G-6314, G-6401, etc. Removed from cinema arc rectifier units. Good condition.

Two (2) pieces used Tungar bulbs type GORDOS 6401/G-83, rated at 15-amperes, 60-volts DC. Filament voltage is at 2.5 volts AC. Originally used in old-model battery chargers cinema arc rectifier units. All removed from reconditioned equipments. Require socket type MOGUL G2-3. Good condition and usable. Socket is not included.

Assorted printed circuit tube sockets for standard 7-pin and 9-pin tubes. Made in USA, brand new.

Home-made battery charger for 4-volt DC electronic photo flash battery (PIC and others). Primary is for 220-volt AC; secondary 4-volts DC terminated with terminal lugs for direct connection to battery terminals. All parts enclosed inside metal case, while the transformer is mounted outside (on top).

9-volt transistor battery charger and eliminator. Runs any 9-volt radio, cassette, etc. with converter. Doubles as a battery charger

(9-volts only) by using adaptor supplied. For 220-volt AC; same size as regular 9-volt rectangular transistor battery, such as: 2U6; 216; VS323; 006P; 1222; etc. Used, good condition.

Three (3) pieces 18-watts Universal Tube type output transformers. Primary 4K-14K ohms center-tap at 40-ma. Locally made by Triplex Electronics, brand new, in original box.

Home-made Capacitor Checker — exact copy of circuit used on Allied (US) Knight kit model 83Y119 Capacitor Checker. It's designed to test capacitors for shorts, or open circuits without disconnecting them from the circuit. These test can be made even though the capacitor is in parallel with a resistance as low as 50-ohms. Short circuit test up to 2000-mfd; open circuit test 20-pf or higher. Tubes complement: 6E5 as Magic Eye Indicator; 6C4 as Hartley Oscillator. With test lead, instruction manual, aluminum cabinet size: 4x5-1/4x4 For 220-volts AC.

Power transistor sockets for type TO-3 case power transistor like OC26; 2N255; 2SB449, etc. No need to solder directly to transistor terminals. With a socket installed, transistors easily removed without unsoldering - no mess, no waste of time. Made in USA, brand new, about 15 pieces still available.

Two (2) pieces 20-mfd at 600-volt can type electrolytic capacitor made in USA by Cornell Dubilier. Size: 1-5/16 x 4-3/4 height. Plug-in type and will fit any standard octal (8-pin*) tube socket. Brand new.

Four (4) pieces 2000-mfd at 15-volt can-type electrolytic capacitor made in USA by Sprague. Size: 1-5/16 dia. x 5" long. Plug-in type and will fit any standard octal (8-pin) tube socket. Brand new.

Three transistor experimenter's circuit board. This delightful and useful experimenter gadget should appeal to one and all. It is multifunctional and will perform the following by merely connecting



DON'T GET THE MESSAGE CROSSED

**have your copy of
THE AMATEUR RADIOWORLD
delivered to you regularly.**

**DON'T BE A PASS-ON READER, HAVE
YOUR OWN COPY.
SUBSCRIBE NOW & SAVE!**

RATES

DOMESTIC

..... 6 mos. — ₱48.00
..... 1 year — ₱96.00

FOREIGN

..... 6 mos. — \$49.00
..... 1 year — \$98.00

**Please check the number of issues required and fill up
the coupon. Then simply mail with the remittance to THE
AMATEUR RADIOWORLD office. Please send POSTAL MONEY
ORDER only payable to THE AMATEUR RADIOWORLD.**

EXCHANGE

your telegraph key, speaker, mike and 9-volt battery to color-coded wires, you have your simple Morse code oscillator, AM voice broadcaster, sensitive AM radio receiver. Fully assembled, ready for use, with hook up instruction and diagram. A fantastic gadget, one which young and old experimenters will enjoy for hours. Made in Japan. All parts are mounted on a printed circuit board, like - 3 transistors; 2 miniature transformers; 1 oscillator coil; 1 tuning condenser; 1 rotary function switch; 1 antenna ferrite coil; assorted resistors, capacitors and a diode. Used, in good condition.

TRIPLER model 3413 Tube Tester — the meter is about 3- $\frac{1}{2}$ " by 5- $\frac{1}{2}$ " with BAD-to-GOOD scales. Filament voltage adjustable from 0.75 to 110-volts. C-load from 0-100; for 110-volts AC only. The whole unit is mounted (about 11" x 15") on a sloping leatherite covered wooden cabinet for service shop bench top operation. May be easily removed (4 screws) from the wooden cabinet for fix panel mounting to suit one's service shop working table. Made in USA, checked okay, except some portion of tube data chart eaten by insects.

"LEADER" Model LSG-16 Wide-Band Signal Generator. All solid-state designed for the radio experimenters, hobbyists, service technicians, and others. An FET is used in a stable oscillator circuit to cover the frequency range from 100-khz to 100-mhz on fundamentals and up to 300-mhz on harmonics. Among the many features are the large easy-to-read dial marked at 455-khz; 4.5-mhz and 10.7-mhz; one audio frequency for amplitude modulation or external use; provision for crystal oscillator operation and coaxial output cable. Serves as a marker generator when used with a sweep generator in checking and aligning RF and IF circuits in TV and FM receivers. Frequency range is from 100-khz to 300-mhz calibrated in six bands. Crystal oscillator will accept any FT-243 crystals from 1-15 mhz. Power consumption is about 3-watts. For 220-volts AC only. Made in Japan,

with original instruction manual and cable. Used for a couple of times only and the unit is still very new, well kept inside a cabinet.

Assorted US, Japanese and European radio tubes — used, brand new mostly still in original box. No time to test, satisfaction guaranteed and the price is very low. 1-DAF41; 2-EABC80/6AK8; 1-EBC81/6BD7A; 2-EBF80/6N8; 2-EBF89/6DC8; 2-ECH42/6J7; 2-EF86/6CF8; 2-EL42; 1-EZ80/6V4; 2-UF89/12DA6; 2-OA2/6626; 2-OB2/VR105-MT; 1-5R4; 3-5U4; 3-5Y3; 5-6AC7; 1-6AK6; 1-6AG6; 3-6AQ5; 2-6AO8; 5-6AU6/EF84; 1-6AU8; 2-6AV6; 2-6BZ6; 1-6BZ7; 3-6C4; 1-6C5; 1-6EM5; 2-6E5; 1-6H6; 2-6J8; 1-6KD6; 1-6K6; 2-6SA7; 1-6SC7; 1-6SH7; 2-6SJ7; 1-6SK7; 1-6SL7; 1-6SN7; 2-6SQ7; 3-6V6; 2-6X4; 3-6X5; 2-6Y6; 1-12AU6; 2-12AV6; 2-12BA6; 2-12BE6; 1-12SK7; 2-35W4; 1-35Z5; 1-50B5; 3-50C5; 2-921 photo tube; 1-927 photo tube; 1-5687; 1-6350/6463; 3-6688.

"KYORITSU" clear plastic panel meter with square face (model MR-2P) measures about 1-3/16x1-3/16 (43mmx43mm) Range: 5-MADC Brand new in original box, made in Japan.

"LAFAYETTE" S-meter, clear plastic, square face, with internal light (for 6v or 12v) and measures about 1-3/16x1-3/16 (43mmx43mm) Scales: S units 1 to 9; +10 to +30 db. Slightly used and in good condition. Made in Japan.

Electrolytic capacitor — 13,500-mfd at 15VDC (20VDC surge) measures about 2"x4- $\frac{3}{4}$ " — made by SANGAMO in USA, with screw terminals. Removed from surplus equipment.

CONTACT: Frank Sallena
c/o The Amateur Radioworld
Tel. Nos. 35-36, 25-66
Legazpi City

Electronic keyer, P500.00. Contact Rod del Rosario, 16 Scout Tuazon, Q.C., Tel. 97-43-50

a) One (1) unit **HEAVY DUTY "PHIHONG"** Regulated dc power supply, Model: PP-1335

* input = 220vac 60 HZ

* output = 13.82vdc 35 amperes surge

* foldback current limiting

* short circuit reverse voltage protections

b) **FURUNO-Rectifier Type SR-4A**

c) **ATYA DC REGULATED POWER SUPPLY**

R12-12 Model/ 13.8 volts

Output = 12 amperes 150 watts

Input = 110-220 vac 50/60 HZ

Please contact: **FRANK, Marquez St., Old Albay District, Legazpi City, Tel. No. 25-66**

CARS

6 wheeler **INTERNATIONAL STAKE TRUCK**, Contact: Prudence Tel. No. 21-43, Legazpi City

Volkswagen Beetle w/ brandnew blower/tire/tinted/radio. Well kept — See to appreciate, contact: George or Jun Tel. No. 32-75, Legazpi City

WANTED TO BUY

Type UX-45 tubes; old tube sockets or variable condensers; type 30, 31, 32 tubes needed to reconstruct 0-V-1 and 1-V-2 receivers. Contact George Francisco, Makati, Metro Manila, Tel. No. 87-40-31 to 39.

FOR SALE/LEASE

LOT

Good for sugar plantation, etc. Very near Bisudeco Milling Factory Bula, Cam. Sur — 18 hectares plus. First come, first serve — **HURRY!** Contact: Frank Tel. No. 25-48/25-66 & 25-49, Legazpi City.

ADVERTISING RATES (CLASSIFIED EXCHANGE): P9.50 per line, P39.00 per column centimeter boxed ad. Special discount for long-running ads.

Alfie Camua-Sy

The sense of urgency in attaining the "systematic accreditation" of all amateur radio clubs in the country and the move of the NTC and IARAC itself to "hasten the selection of a national radio organization," was not without some turbulent incidents.

The Interim Amateur Radio Advisory Council

THE QUEST FOR UNITY GOES ON WHILE A RACE OF HIGH HORSES RAGES

(Conclusion)



Soon after the first meeting of IARAC was done with curiously, reactions, predominantly negative in nature, would be loosened by some sensitive amateurs. Some would question the propriety of the meeting's conduct. Those in the know would feel that somewhere somehow the Memo-Circular (1-01-84) issued by the NTC had some defects in some aspects: "There should be public hearings before any government entity (like the NTC) takes a move to issue rules/circulars (1-01-84 in particular), because such move will affect rights of individuals and of societies, and that fees and penalties are involved. That there should be thorough consideration of the matter on hand, as rules and regulations should provide orderly proceedings."

It was obvious that a number of hams were questioning the correctness of the proceedings adopted in the conduct of the February 29 meeting.

Foremost among the hams who were vocal in expressing their disenchantment over the IARAC formation are certainly those of the Philippine Chamber of Amateur Radio Societies.

The reason for their disenchantment was obvious.

For one, the Iloilo Amateur Radio Organization (IARO), in a letter dated March 5, 1984 addressed to Commissioner Carreon and signed by IARO



OATH TAKING: ARAC had all the trimmings of a formal organization as how NTC memo-circular 06-08-80 would have it. But nothing came after this oath-taking. From left: Juan Escobar, DU1JE; Col. Emeterio Orbe (ret.), DU1EO; Vincent Resurreccion, DU1REX; Jose J. Tupaz, DU1JJT; NTC Commissioner Ceferino S. Carreon, DU1CSC; Engr. Heracleo San Juan; Col. Espinosa; Atty. Heceta and Mr. Tandingan of the telecommunications agency.

president, Dr. Salvador G. Dolar, protested and alleged that "the selection/designation of the Panay Amateur Radio Club (PARC) as the District 6 club representative to the interim council and the seating of Caesar Ong, PARC president, as representative of the district was not upright. . ." to them the legitimate representative of District 6 to the council is Roberto Garcia (DU6BG) as agreed upon by IARO, PARC and the Capiz Amateur Radio League (CARL) which are duly accredited clubs in the district.

Then there was this reaction from BARRL's leader Mr. Inocencio Roa, DU1ROA/4, District 4 representative to the council, when he raised "some points to ponder" commenting on the March 4 PARA's "meeting on-the-air" presided by Mr. Donnie Poblador (see TAR March, 1984).

Roa would claim that the said "meeting" where Mr. Poblador reported some critical aspects of the first IARAC affair a few days after it was convened by the NTC, had caused some misconception among the majority of the ham population in the country. Mr. Roa would like to make clear that PARA is not the national organization for the local hams on account of the results of that February

29, NTC initiated meeting. Said Mr. Roa: "He (Mr. Poblador) must have the courage to bring out the whole truth on the real state of amateurism in the country — the real picture of what really is PARA or PCARS or Mr. Poblador himself in relation to the interim council. . ."

Meanwhile, the NTC, especially the office of Engr. San Juan whose concern is to attend to the needs of the radio amateurs in the country, would become the subject uppermost now in the minds of the local hams, vis-a-vis the formation of this interim council. Some critical questions couldn't be helped being raised by the observant baffled hams. That is, on the principal matters concerning the council; for "IARAC is the creation of the NTC, subject to any protest."

Subject, that is, to the following:

1. Could it be that the NTC must have been playing politics. . . playing the two ham factions — the PARA and the PCARS — against each other?

2. As per the "result" of the first IARAC meeting, convened by the NTC, did the latter deliberately manipulate the course of this meeting and cause PARA's gaining the upper-

hand? . . .

From ARAC to IARAC

There is a long train of questions. But the most critical of all, nay, baffling and nagging, in the light of NTC's exercise of power, is: How come then that the NTC created a body, some few years back, whose function was in essence similar to the present council, and this body, after having been created would be left to "stale" just like that, without even assuming a bit of its function, its birth and presence were not even felt in the process by the whole local ham scene?

Yes, Virginia! Memorandum-Circular No. 06-08-80 was issued by the NTC, this taking effect on August 13, 1980, some three years prior to the IARAC formation, and provided by this Memo-Circular was the creation of that Amateur Radio Advisory Council (ARAC).

This defunct council (deemed "amended, modified or repealed accordingly" upon the NTC issuance of Memo-Circular 1-01-84) was formed "to serve as a consultative and/or advisory body to assist the Commission in the study and formulation of unified policy guidelines and in providing (Page 24 pls.)

SAVE A BOOTLEGGER

EYEBALL

Gerry Y. Bongalon, DW4AT



Statistics are like a bikini. What they reveal is suggestive, but what they conceal is vital.

— Aaron Levenstein

Times are hard and becoming harder. Take these recent increases in oil fuel prices. When oil prices rise, increases in prices of basic commodities cannot be far behind. Price of oil have become the price index. At the root of it all, though, is something that is hard to understand. The government's outlook in triggering this increase rather runs counter to the viewpoints of economists. The latter maintain that there's an oil glut in the market, ergo, prices are low. The former, in coming out with this decision, anchors its arguments with aims of lessening oil imports. Meantime, everyone is groaning while bugbears are having a field day.

* * *

CONGRATULATIONS! Ham X, Inc. in Cagayan de Oro City, Northern Mindanao had their Field Day on May 5. The next day, Ham X held their charter presentation and inducted into office a new set of club officers for 1984. Thanks for the invitation. And to the winners in the third annual PARA DX contest. Wasn't it great? Well, this quarter feels that hamraderie can be better served with such activities. Carry on!

* * *

Sometime ago I had an eyeball with Mon Francisco, president of ORAL and a fair name in the local hamdom. From out of the blue, I asked Mon what he thinks of bootleg-

gers. Without batting an eyelash, he assuredly said that they are not nuisances *per se*. Mon's line of thinking: Bootleggers may not be conscious of the evils in their operation. Often times, they are misguided elements. Maybe, at the very start they fell into bad company. Now, to condemn them will not be helping the situation any. Whenever I come across any of their kind, I don't shoo them away. Instead I encourage conversation. The contact may be short. But I make it a point that we meet again sometime. Next time around, I preach the gospel of legitimate operation, build up friendship. And in most instances I get them to reconsider their position. There, we develop another potential legitimate operator. No amount of anger or indignation can solve the problem, Mon believes. Mon feels that if everyone of us, legitimate operators, will find time to do the same, the multiplier effect could be very fruitful. That's putting it positively, Mon, and this quarter is with you there. We can make it sort of a pastoral mission and convert all them misguided spirits into the fold of righteous operations. Counting me out, though, how many Mons do we have? Please rise and do your share, okay? By the way, belated congratulations to the newly inducted officers of ORAL. We wish you the best of hamming days ahead.

* * *

Going back to the Batasan elections, who wouldn't be proud of the citizens' vigilance in preserving the sanctity of the ballot? Sure enough, post-election sentiments must have restored some measure of Filipino pride. It feels good to be supreme, even for a flitting moment, does it not? And as vigilant citizens, this quarter

hazards that hams shared their modest worth of concern. Truly, not only did a single club tie-up with commercial broadcasting stations to assist the latter come up with wider coverage. Assistance came in the form of equipment as well as manpower. In no small way did media help keep the people's right of suffrage retain its sanctity. For one, we can cite the Bicol Amateur Radio Relay League in District 4. BARRL rendered full support to the Regional Office of Media Affairs with all commercial broadcast stations in the area rallying behind it to launch a successful *Panawagan '84* project. Panawagan '84 had all Bicolanos glued to their radio sets as reports flowed in from all corners of the peninsula. Okay, okay. Like the humble street sweeper who asserted himself during that crucial moment, our hams cannot be faulted. He was there, in the vortex of events. Three cheers for all of you!

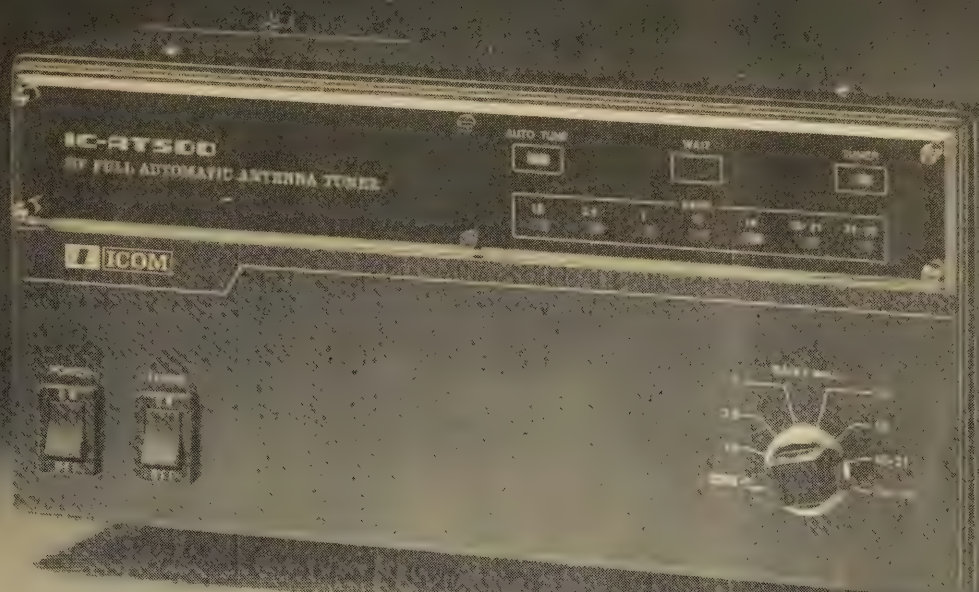
* * *

We have it that in the USA, the FCC has eliminated routine station log requirements. What remains to be kept by American hams are records that pertain to repeater, auxiliary and remote control operations. It was the FCC itself which initiated the move. The reason: there is no official need for a record of routine station activities. FCC relies more on data collected through monitoring.

The development, according to reports, will enable 413,000 licensed hams to save some 300,000 hours annually from doing the reports. You can also imagine the cost of maintaining logbooks. Uh-uh, these days when paper costs are (... in our country, that is). ♦

HF FULLY AUTOMATIC ANTENNA TUNER

IC-AT500



QUICK TUNING UP

Newly developed detector circuit detects resistance and reactance of the load, and controls powerful motors to tune two variable capacitors. The result is that the tune up time is very short.

AUTO BAND SWITCHING

When the IC-720A or IC-701 or IC-720 or IC-730 (optional LDA unit installed) is used, band switching of this tuner can be controlled by the band switch of the IC-720/720A/730/701. This tuner has dual accessory sockets, so the auto band switching function can be used for IC-2KL linear amplifier at the same time.

PRE-SET CAPABILITY

The matching circuit can be preset for each band, so you can make quick OSY's, and have trouble-free operation.

FOUR ANTENNA CONNECTORS

This tuner has four coaxial sockets for antennas, and selects the suitable antenna for each band automatically.

When the TUNER switch is turned off, this tuner can be used as an automatic antenna selector.

TWO-WAY POWER SOURCE

This tuner can be used with 13.8V DC or 117V AC (or 230V AC)

HF/VHF/UHF AMATEUR AND MARINE COMMUNICATION EQUIPMENT



ICOM

ICOM INCORPORATED

PHONE: (06) 793-5301

1-6-19, Kamikurazukuri, Hirano-ku, Osaka, Japan

CABLE: ICOMTRCVR TELEX: 05277822 ICOMTR J

The BARRL's First Invitational Field Day

THE WINNER: AMATEURISM IN DISTRICT 4!

Frank Sallena

QTH for this 2-day affair was set at the Fisherman's Hut, near the invigorating expanse of Bacon Beach, a summer pride of Sorsogon Province in the Bicol Region. Here, many an eager ham participant would answer the call of both the wild and the ether, and in fullness would recharge themselves, so to say, with vibrations of frequencies and wavelengths. . . of course, not without the blessings of camaraderie and goodwill and of the good (hamming) life. Dubbed as the "First BARRL Invitational Field Day (April 28-29, 1984)," and deemed to be the first ever to be conducted in this district, by which the BARRL Board of Directors hoped could "increase the number of self-trained skilled experimenters within the circle of amateur radio enthusiasts in the Bicol Region," this ham event was kept fully charged during that 2-day period by a simple program that monitored and rated the mettle of the participating hams in the field of DX-ing, CW-copying and antenna-usag-homebrewing workmanship.

Bicol Amateur Radio Relay League (BARRL) president, Jun Balce, defining the main theme of the Field Day, said the activity meant "To encourage hams to help improve amateur radio service, through friendly competition which will emphasize skills development in amateur radio communications, both as a science and a technology."

Five member-radio clubs of the BARRL went to participate in this summer ham affair. Enthusiasts of ham-radio art from RIG (Radio Information Group) of Daet, Camarines Norte; MARC (Mayon Amateur Radio Club) and SMART (Special Mayon Amateur Radio Team) of Legazpi City; SARA (Sorsogon Amateur Radio Association) and SHARE (Society of Hobbyists and Amateur Radio Enthusiasts) of Sorsogon did have some field day satisfying their hamming wants and realizing some communications dream, as they made complete the circuits of this their particular technical experience in the company of cottages and tents. . . and of amenities, vis-a-vis their electronic equipment, ideally suited for such a tropical *hamboree*.

The Field Day special events included: 1) DXing, exclusively on HF (foreign contacts only, point system); 2) CW proficiency (point system); and 3) Antenna contest — for two categories (a. 8-element and below, b. 4-element and below. . . single and twin). In this contest, the participating radio club to garner the highest total points in all the three events would be declared champion for 1984.

All their gears and stuff set at that hour of the start of the Field Day, ham attendees from the respective BARRL member-clubs showed up with an aura of keen enjoyment and were all agog over this prospect of real DX and CQ forums (which came to be, indeed!) during the 2-day period of hamraderie, which was highlighted also with fishing and air rifle contests as a kind of "spice" to this affair.

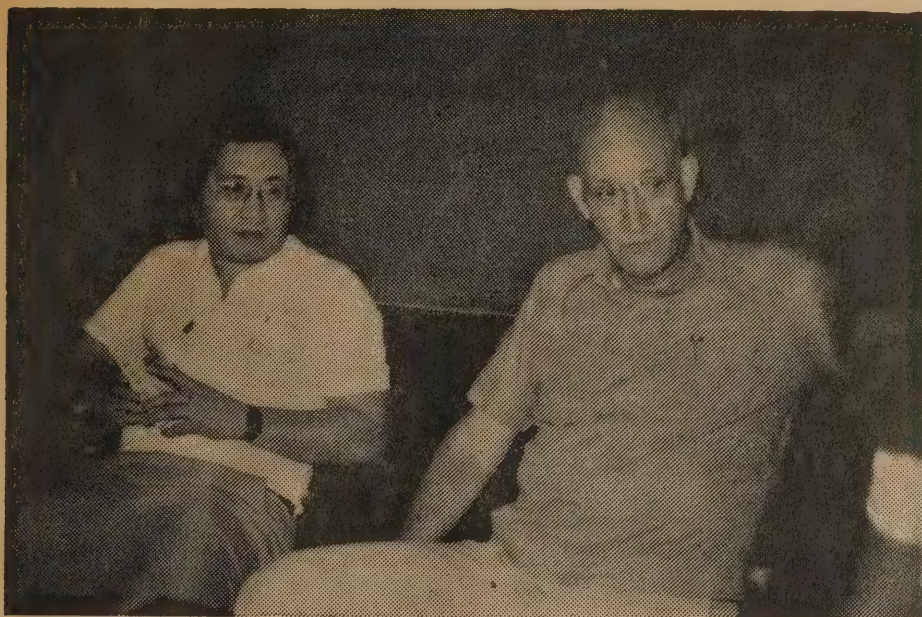
In the heart of this hamming life was Field Day chairman Dr. Jose B. Tolentino (DV4AD) and his fellow organizers briefing now and again the ham-participants on the contest guidelines, as the ham participants swelled, they rushing and checking in within moments of each other during the hours of 6 a.m. and 9 a.m. on the first day of this hamboree. Exactly at 9 a.m. "chatting time" commenced. . . lasting up till 12 high noon, towards a hearty lunch break offered by the Fisherman's Hut, Bacon Beach, at that moment, literally hummed with amateur radio life.

In an hour or so after lunch was: "preparation time!" Organizational meetings, setting of equipment, and such. . . and at 6 p.m. the competition proper would begin.

First, it would be the DX-HF contest, exclusively on 15-meters. Each participating club had been assigned their transmission time. From 6 p.m. (April 28) up to 6 in the morning of the next day (April 29), HF equipment of various makes and brands would be kept alive by the monitornig hams. And it would also mean a straight 12-hour monitoring for the Field Day organizers! Later, MARC, would top them all with a total of 115 points followed by SMART's 51, RIG's 43 and SARA's 41.

Then at 6 a.m. of the second (field) day was hunting time. Actually a friendly shooting tiff among DU-1ROA, DW4HL and DW4RS. . . it was a 4-hour hunt for some games of both the sky and terra firma within the expanse of Bacon Beach and the bushes nearby.

(Page 33 pls.)



Gentleman
of the
airplanes.

DXer DU1RFA
(center) in
a friendly
tete-a-tete
with TAR
Executive Editor
Zoilo Chan (right)
and Associate
Editor Gerry
Bongalon, DW4AT
(left).

Engr. Juan Edgardo Y. Bongalon,
DW4BE

Patience is the key to good DXing. There is no other way to it and still be a gentleman on the air, which, sad to say, is a fast diminishing breed these days especially that our bands are getting overcrowded.

— DU1RFA

Let us increase the number of HF people!

— DU1FH

The two of them are DXers in the fullest sense of the term. In point of fine electronics capabilities, one is very comparable with the other. Both belong to a rare breed that embraces the ether wilderness. Their feelings for communication had been set to go beyond that of the wireless mystery, they would operate their rigs like some creatures possessed, their shack — even their whole beings — blazing with an aura of the cosmic which sometime back in the dawning of electronic age had electrified the likes of Hertz and Marconi. And to try to inquire into the basic nature of their gift . . . means a job like probing the electron, one may say, the electron which “does not allow itself to be seen. in the same way the classical elementary particle allowed itself to be seen.”

One does not strive to “see” Mr. Rafael Azada (DU1RFA) and Mr. Fred Hashim (DU1FH); one contents himself to just feel these two creatures of the electron. . . to hear them sound off a portion of their mystery and their love of the DX, while sitting entranced within the confines of a hall some-

THE STATE OF DXing IN DU-LAND AFTER 67 YEARS

where in the Metro Manila capital.

Or else perceive their essence in the light of physical and human reality. . .

DU1RFA, the mestizo-ham who would “stalk” his way through the DX world on 20 meters at most, has been laboring for many years to reach some perfection in the electro-art he practices with vitality. His are labors of love that would become a beautiful story to tell!

DU1FH the DXer par excellence, is, on the other hand, an OT with lots of stories to tell; not so much as about himself as his wide experience on HF and his other encounters in the realm of radio and ham organization.

Both of them, being respected DX personalities in the local hamdom, have developed habits of communication sense which acquired the force of instincts. DU1RFA (he was featured in TAR November, 1983 issue), however, could not help saying that, relatively, “I’m a wet chicken compared to him (DU1FH) as regards radio matters.” Mr. Hashim would only burst into some laughter, a sound coming from a portrait of an OT, as his friend “Raf” thought Mr. Hashim to

be: “purified, secure, wise. . .”

The TAR group that met with the country’s two “wisemen of DXing” couldn’t help being awestruck by that something about them. . . call it spontaneity or some expression their faces would exude at that moment. . . Their graces and their hamsense adding authenticity to their roles as both Elmer and Nestor to any upcoming DXer who are to strive for experiencing the real genuine essence of this art.

Ah, DXing. . . “But the art,” lamented DU1RFA, “it has as yet to be widespread here!” In a sense, the world of DXing in this country, according to Mr. Azada is not yet fully developed, that is, in terms of the number of stations on the air (and they’re so few!) that operate on HF. “Well, you can hear them on 40-meters net. . . but not that much on 15- or 20- or 10-meters.” In Japan, DU1RFA would note, there are about 600,000 amateur radio enthusiasts and some more or less 400,000 of them go HF. Here, in a country of 2,000 “active” hams, DU stations rarely make their presence felt in the realm of DXing. “We are very very few practitioners of the art in this
(Page 32 pls.)

HEINRICH RUDOLPH HERTZ

SOLVING THE RIDDLE OF THE WAVES

Felipe Jose B. Peralta

**Whatever you have, you must
either use or lose.**

— Henry Ford

Glorious contributions to science were not all products of god-like intelligence. A creditable number of discoveries which continue to make life convenient for humankind were results of painstaking studies and tenacious commitment to useful terrestrial existence. A case in point may be Marconi's.

Nonetheless, a high intelligence quotient, properly utilized and to the maximum, has always been a marked property of successful men of science.

While Marconi failed to qualify for academic education, his dedication to science resulted to contributions which if suddenly taken away today will enormously set back modernity.

Quite different from Marconi, he who did his thing, so to speak, in his own brewed, modest laboratory, is Heinrich Rudolph Hertz. Hertz matured in the ambience of the academic groove. He was, in no small measure, a scholar.

Hertz, of course, is what any ordinary mortal vaguely understands as kiloHertz or megaHertz ubiquitously printed on radio band indicators. He is what every radio announcer of commercial broadcast stations mentions during every hour on the hour station identification breaks.

Heinrich Rudolph Hertz saw light on February 22, 1857 in Hamburg, Germany. Except for his brilliant academic and professional life, nothing much is further revealed about his private person.

Hertz started to tinker with physics during his campus days at the University of Berlin where he became an assistant to scientist Hermann Ludwig Ferdinand von Helmholtz. It was in 1880 when Hertz graduated from this university with a Ph. D. Magna cum Laude.

With such an exemplary academic performance, Hertz went forth to share knowledge with students of science as, first, a lecturer on theoretical physics at the University of Kiel. This was between 1883 and 1885. From 1885 to 1889 he became a professor of physics in the Karlsruhe Polytechnic. In 1889 he was appointed as professor of physics at the University of Bonn.

In between classroom and laboratory exercises, Hertz never rested from the serious study of physics. Sometime in 1883, Hertz took scholarly notice of the electromagnetic theory forwarded by the imminent British physicist James Clerk Maxwell. Almost a year after, Hertz was able to clarify and expand Maxwell's theory. Among his initial discoveries on the study of Maxwell's theory was that "electricity can be transmitted in electromagnetic waves, which travel at the speed of light and which possesses many other properties of light, such as similar wavelength patterns, refraction and polarization." (Funk, and Wagnalls New Encyclopedia)

Hertz' researches on the subject, particularly the practical results he obtained were compiled and published in 1887. "... these were no less brilliant than were the mathematical researches of Maxwell." (New Universal Encyclopedia)

Thereon, Hertz was possessed by an undying inspiration to complete his studies. Between 1885 and 1889, while he was still professor of physics at the Karlsruhe Polytechnic, Hertz was able to produce electromagnetic waves in the laboratory. These he successfully hurled through space, measured their length and velocity.



He unquestionably proved that these waves are susceptible to reflection and refraction similar to light and heat waves. In the process he was also able to establish beyond doubt that light and heat are electromagnetic radiations.

These Hertzian discoveries would later serve as the bedrock of the science of wireless telegraphy and radio.

Consummate Investigator

Hertz started with electric discharges in rarefied gases and somewhat concluded with the measurement of electromagnetic cycles.

This scientist of a ham, if the statement is not irreverent, left no "stone unturned" during his studies.

He delved deep into the refraction, diffraction and polarization of electric waves and their correspondence with those of light and heat. To do this, Hertz devised a simple apparatus. The New Universal Encyclopedia has this account:

The apparatus devised by Hertz for generating and detecting the waves was quite simple; but his demonstration of their compliance with Maxwell's equations and predictions was so graphic as to be almost sensational. He used the discharge of a sphere-gap, charged by an induction coil, as his source. Such a discharge creates a low resistance path for itself by its initial spark, through which the opposite charges in the two spheres rush together, and then overshoot, reversing the polarity of the spheres and continuing the process until damped out by circuit losses; much as the levels of the liquid in the two arms of a U-tube will oscillate after their relative heights have been disturbed. The spheres were fixed to metal rods in line with each other, bearing metal plates at their outer ends, into which the oscillating charges surged. Waves due to the movement of the charges were radiated through space, and could be detected by means of a similar sphere-gap joined by a circular loop of wire. When the length of the wire is such that the period of oscillation is the same as in the generating circuit, small sparks pass across the gap. Thus the principles of resonance and tuning of an oscillating circuit were illustrated.

ELECTROMAGNETIC WAVES, MAXWELL AND HERTZ

Wherever an electric charge accelerates, that is, changes its speed in direction of motion, it radiates energy in the form of electromagnetic waves. (This statement is not valid inside atoms.) It is the motion of electrons in an antenna that causes the radiation of radio and TV signals. Such radiation was predicted in a theory, developed by James Clerk Maxwell about 1880, based upon four fundamental equations (Maxwell equations) concerning electric and magnetic fields: one is a modified formulation of Coulomb's law; a second states mathematically that free, isolated magnetic poles cannot exist; the third is Faraday's law of electromagnetic induction; and the last is a general formula for computing the magnetic fields of currents. Adroit manipulation of these equations led Maxwell to the prediction that electromagnetic energy can be radiated as waves which travel with the speed of light. About 1886, Heinrich Rudolph Hertz produced such radiation, a striking confirmation of the electromagnetic theory of light and one of the outstanding achievements in classical physics.♦

Having devised means for creating and detecting the waves, Hertz proceeded to show their similarity to light waves by reflecting them from a metal plate, refracting them with a prism made of pitch, and polarizing them with a metallic grid. Finally, he formed a standing wave by causing the original wave to interface with its own reflection, and by measuring the distance between successive nodes located by his detector, he found the wavelength, and verified the velocity of propagation. He confirmed that the waves were identical with light in all but wavelength or frequency.

Thus the Hertzian waves, after its discoverer. To honor the man, the consummate investigator that Hertz was, the unit of frequency that is measured in cycles per second was called **hertz**.

A year before Hertz died one of his scientific papers, **Electric Waves**, was translated into English and published. Some two years after his death which was on January 1, 1894, his **Miscellaneous Papers** also saw print and in 1899 **Principles of Mechanics** got published.♦



Bicol Express
PHILIPPINES

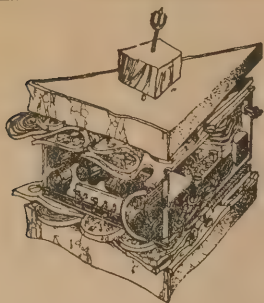
Pasay ★ Sorsogon ★ Gubat ★ Bulan
Tabaco ★ Legazpi ★ Catbalogan,
Samar ★ Rawis, Samar

**"Where your comfort
is always our concern."**



**LIBERTY COMMERCIAL
CENTER**

*Tabaco *Legazpi



TO CW OR NOT TO CW

HAMSENSE

Alfie Camua-Sy

Last month, a cruel April of discomfort at one's quest for a place in the hamming sun, I joined a multitude of amateur hopefuls, eager in pursuit of the wireless and gripped by this dream of holding someday a license to operate one's rig. At last, we came near to being able to laugh at, to scorn the notion of a bootlegging contact with many ham friends one had grown in the course of one's deep involvement now in the world of amateur radio. I was there, complete with all the papers required of an examinee. I would admit, though, I wasn't fully prepared then for the whole task. (My CW knowledge was very defective!) The other more or less 400 hopefuls there with me, who had also been hankering after a Class C license, were seated. . . unmindful of the afternoon heat and the profuse sweat the smell of which would assault both souls and nostrils. We had put ourselves in a trance, awaiting the decisive hour of this question, *To be or . . . not to be a ham.* . .

I abandoned myself to the miraculous that Saturday the 14th; that is, in terms of that exam's portion where one's mettle(?) at CW proficiency was to be tested.

The stage inside the Bicol University Little Theatre (Daraga, Albay) where the NTC testing center had been assigned for this particular schedule by the examination committee became a picture of papers and telecommunications creatures up to monitor and serve as proctors to the big crowd of examinees inside. At first

one was not cognizant of the presence of these important beings at the far end of the Little Theatre's interior. My mind suddenly appearing blank. I was getting to be burdened with cares: "Will I make it? Is there other way to pass CW without really trying?" I managed somehow to bathe myself with high spirits. Think positive. . . I told myself. I even imagined I was there with Mr. Marconi and Mr. Morse themselves on either side of me, these two creatures of electronics and communications were around to guide and make me hurdle this task awaiting me.

"If you want to make the grade in a CW proficiency test think that the sound you are currently receiving. . . transmitting as a very beautiful language to learn. You can even imagine that it is a sound of poetry you're listening to. . . if you can do this, then I assure you — you will make it!"

**— Engr. Leonardo Garcia
(An advice on how to pass CW)**

A loudspeaker installed near the stage burst with the respective voices, alternating one at a time, of Engr. Leonardo Garcia and Atty. Aurellano Cordero (assisted by Ms. Vilma Enriquez) announcing this or that matter pertaining to the would-be exam. Now I was very much thrown to the reality of my experience for that day. I examined the faces of those three creatures, flanked by local NTC people at the stage: Engr. Garcia, Atty. Cordero and Ms. Enriquez were the committee of three sent by the NTC central office to monitor the conduct of the examination of the local amateur hopefuls around. A kind of shudder would run up and down my spine, and for this I couldn't say why.

I gazed around. . . it was funny that I still managed to have the time to probe the expression that kept me company at that hour. I was curious and intrigued by the interest these people around me had given to the etherworld. I knew I was amid a multitude of some middle-class hopefuls

who happened to be entranced by the amateur radio world. And my sixth sense would right then tell me that many among us there would afterwards find themselves either blue or. . . as to what one would feel of the outcome of the exam he would be taking.

The common "enemy" for us during that day of the exam was CW. "Can you both receive and transmit CW-copy fairly well?" was the principal question. Yes, CW could make or unmake any of us. And most of us inside the theatre were doubtful about

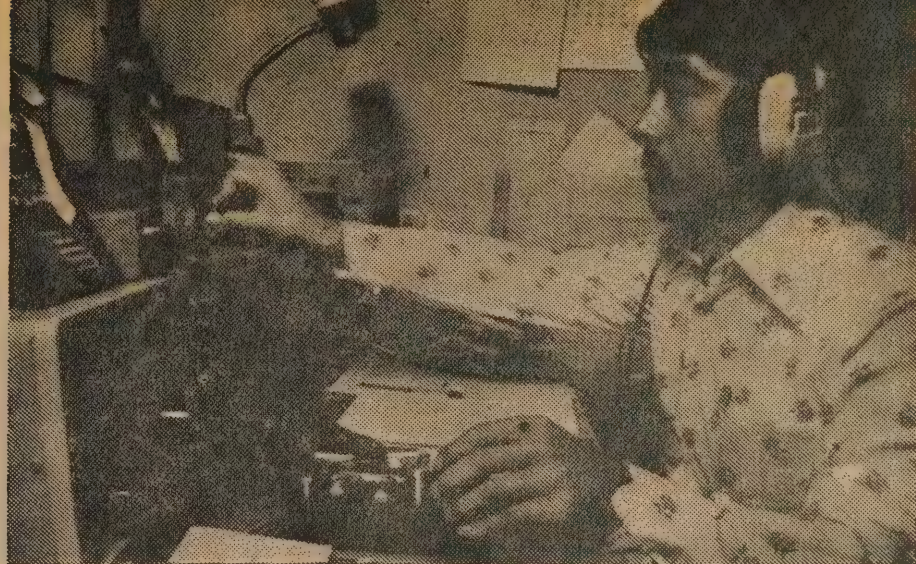
one's capacity to hold one's own against this forthcoming struggle with CW. For into the hard fact of hamming life is CW-copying ability, or else. . . you're *out*, if you fail to contain this not so easy a task.

The exam commenced. . . The one portion of which was a test on one's knowledge of electronics theory and radio laws. On this one, I was confident I could make it; for I had already read many books written about the subject many times before. But then. . . the other portion. I started invoking the intercession of some ham-goddess to grant me the power of the CW.

And in the heat of the examination, amid these craning of necks and an atmosphere of tension, I grappled with the "enemy" . . .

I proved no match that day with the intensity of a CW proficiency test.

But next time around. . . there will be no next time!♦



REPUTED: JA0CUV/1, Takao Kumagai, (above) is a "prize catch" for hams all over the world. He has a way of popping up from uninhabited countries. Left, the popular Kumagai QSL card.

Every night, radio waves flash their way through the skies, reaching across the earth from Chofu, on the outskirts of Tokyo. The call sign "JA0CUV/1," is that of 26-year-old radio operator Takao Kumagai. He is strictly an amateur, who holds the unusual record of having transmitted radio signals from eight places abroad to hams in other lands.

Kumagai began studying amateur radio on the advice of a science teacher when he was a third-grade student at Iida Municipal Higashi Middle School in Nagano Prefecture. By nature, he was so fond of working on machines, including assembly of radio sets, that amateur radio soon became his favorite hobby. As a freshman at Iida High School, Kumagai obtained a telephone operator's license, followed by a telegraph operator's license when he became a sophomore. After graduating from high school, Kumagai came to Tokyo to work at the Science and Technology Agency's National Aerospace Laboratory. Though working in the daytime, he attended night classes at the University of Electro-Communications to continue studying wireless radio. He received a second-class radio operator's license while a university student and later passed a test qualifying him as first-class radio operator in the year he graduated.

Kumagai operates his amateur radio set in the nearby dormitory for unmarried personnel of the National Aerospace Laboratory. By the window of his small six-mat room, he has set up his transmitter and receiver and put up a nine-meter high antenna on the roof. Kumagai has so far communicated with many thousands of amateur radio operators and collected more than 4,500 QSL cards.

Ham radio operators vary in age and occupation. Because of this, it often happens that they come into contact with unexpected people while in the process of exchanging messages with their ham counterparts.

His most thrilling episode happened on April 1, 1970, when he turned on his radio set early in the morning. There was a radio signal from abroad, calling:

"CQ, CQ. This is JY 1, in Amman, Jordan, calling CQ and standing by."

Kumagai adjusted the frequency and switched on his transmitter, calling back:

"Hello. This is JA0CUV portable 1, calling and standing by."

Then the response:

"This is Hussein 1, King of Jordan. I want to exchange QSL cards

with you. Tell me your name and address. My address is

Kumagai promptly replied:

"This is Takao Kumagai, Tokyo, Japan. My QSL card will be sent by airmail. My address is"

Their conversation lasted only five or six minutes. Later, Kumagai was bewildered and talked to himself, "I contacted the King! Is it true? Isn't it an April fool joke?"

Then, several weeks later, Kumagai received a QSL card from Jordan, proving the "operator" to be "Hussein 1" and the golden royal crown crest was stamped on the card. This happened shortly after the Jordanian king had set up his own amateur radio set.

Kumagai travels abroad whenever he has saved enough money to do so, and takes his radio set with him. He usually visits Pacific and Indian Ocean islands, where only a few amateur radio operators are to be found.

In the summer of 1973, he flew to the Republic of Nauru, from where he communicated with hams in other lands. He also visited Bangladesh and the Maldiv Islands in the autumn of 1974. This spring, he took a one-month leave to visit the British-held (Page 30 pls.)

THE LIFE AND TIMES OF A CONSUMMATE HAM

To work DX, you have to be in the right place at the right time and then you have to *listen*. You can't work 'em if you can't hear 'em. *Listening is the most important part of DXing*, goes one cardinal rule. Not only do you listen for the rare ones, but you listen for the operating habits they may be using. This knowledge may help you use procedures to get you through the crowd much faster! Listen and pay attention.

If you have a few hours when the XYL doesn't need you to go to the store, how about listening for a little DX? Say it is three o'clock in the afternoon and you want to take best advantage of the hf DX bands. Consider the possibilities. It is too early for 80 and probably 40 as well. Twenty might have some fair DX but the long-haul westward skip has not quite started. But on 15 and 10, the skip may be starting, assuming the band is open. This is greatly dependent on the sunspot cycle.

SOME BASICS OF

If both 10 and 15 are open, you will probably start with 10 and test the band a bit. The beam will probably be pointed westerly or north-westerly (from the USA) toward the general Far Eastern area. If any South Americans are active, and they usually are, they will still be heard even though off the back of the beam.

Ten might be so hot that you'll decide to stay there to hunt for new countries. However, why not exercise your option to switch bands to take advantage of changing conditions?

Take a quick listen on 15 and even 20 now and then to know what is going on. Perhaps you will hear something you would like to try to work. Sometimes in the late afternoon there are nice 20-meter openings from the easterly areas, West and Central Africa and Europe. Toward the hours of sunset, check 40 meters for some long-haul "gray line" DX. Check 80 about the same time, also a little later.

You might use a similar "game plan" for morning DX, only in reverse. Eighty and 40 would again exhibit

GOING DX? TRY RTTY



HOW'S IT? TAR Staffers Frank Sallena (left) and Alfie Camua-Sy (right) having a view of RTTY in operation. Manila Bureau Chief, Rod del Rosario, DUIROD (at the keyboard) shows how the machine works.

The "bleep-bleep" world of the RTTY DX devotee is a wonderful esoteric combination of electronic and mechanical skills. RTTY DXers are an enthusiastic and friendly group and encourage operation from new countries.

RTTY may be accommodated by most amateur transmitters used by DXers. (Watch out for your final. It is under key-down conditions all the time while you are typing.) All you need to become active is the teletype itself, plus a receiving unit called a demodulator which interfaces between your receiver and teletype. You'll also need a "keyer" of some sort on the transmitter to shift either an audio tone (plugged into the mic jack) or the frequency of your transmitter by 350 or 270 cycles.

The basic equipment is actually quite simple and is usually built by the operator. Kits are also available. No alterations, or at least only slight changes, to existing transmitters or receivers are required.

There is a lot of RTTY DX to be worked. In fact, over 20 stations have qualified for a DXCC issued by the *RTTY Journal*.

You will hear most RTTY DXers in the general area of 14,080-14,100 MHz. ♦

EFFECTIVE DXING

good "gray line" sunrise openings. Then check 20 at dawn for long-path. But don't forget to listen to the west periodically. Strange how many times Asian stations are in there calling USA stations, but the entire USA is beamed easterly and never hears the calls. Fifteen and 10 open in the early morning to Europe and Africa during high sunspot activity but more usually in mid-morning from the eastern direction. About the same time, signals should start in from the south but peak with very strong signals a

little later.

You will learn how this pattern varies at your location from season to season and from one point on the sunspot cycle to the next. You will enjoy exchanging such propagation information with other DXers because without good basic data on what to expect, and where, your DXploits could be seriously limited. You might do this over a two-meter DX net as you are tuning the bands. ♦ **TAR Research Group**

**To work DX
you have to be
in the right place
at the right time
and then you
have to listen.**

HOW ABOUT A DXCC/WAS USING QRP?

Do you ever wonder how far away a QRP signal say 2 to 5 watts in level, can be copied Q5?

It can be said without reservation that DXCC and WAS are within easy reach of any QRP operator who exercises patience, a reasonable amount of operating adroitness, and who is willing to use something other than a random-length wire antenna. This does not suggest that a multi-element beam antenna is essential to success. But, a properly adjusted dipole, end-fed hertz, or vertical ground plan is the right way to attack the matter.

One experience can very well explain the whole thing. A homemade 7-w solid-state station was set up on Grand Cayman Island in 1974 by W1CER/ZF1ST. The operation bands were 40 and 20 meters and cw was the chosen mode. The palmettos near

the quarters were only about 20 feet high, so the two dipoles (coax fed) were strung from the tree tops to a point near ground, and sloped at a tilt angle. All call areas in the USA and most of them in Canada were worked on both bands. Signal reports from the other end of the circuit ranged from RST 559 to RST 599! There were even reports of 20 and 30 dB over S9. Many European and South American stations were worked also, but the supreme thrill came at day-break one morning when a CQ on 40 meters brought a cover of JA stations in response. It was even more exciting when two of the JA stations reported the 7-W signal as RST 589! The complete story was reported in *QST* for March, 1975.

A similar experience was had while using commercial QRP gear on the island of Barbados in 1972. A Heath HW-7 transceiver was hand-carried to the small land mass, and 20 meters was the band utilized. Power output was only 2 W. The antenna was a dipole made from No. 24 hook-up wire, fed with RGI74/U subminiature coaxial cable. . . very lossy line at 20 meters. The dipole was hung at 45-degree tilt over the seashore. With

that setup it was possible to hold nightly schedules with friends in Michigan and Connecticut, plus work most parts of Europe.

You must be wondering at this juncture, just how low in power one can go before failure overtakes the operator. This question brings back a fond memory of the early days of solid-state devices. Just for fun, a one-transistor crystal-controlled oscillator was tacked together, point-to-point, without a chassis. Operating voltage was provided by a few penlite cells in series — enough to deliver 9 volts. The dc-power input to the transistor collector was a miniscule 50 milliwatts. The tiny 40-meter rig was connected to a ground mounted vertical antenna in the back yard at ARRL headquarters, and during the lunch hour W1CW, W1DX and W1CER staged a DX-prowess contest to see who could raise the first station as turns were taken at the key. After some four or five CQs, a W8 station in Ohio (approximately 800 miles distant) came back with an RST 569 report. A solid QSO ensued, lasting about 15 minutes! Power output was measured later as 25 milliwatts. ♦ **Ham Radio Operating Guide**

BARRL'S FIRST FIELD DAY



The Fisherman's Hut, a well appointed beach resort in Bacon, Sorsogon, literally hummed with ham life, April 28 to 29, 1984, as amateur radio enthusiasts representing five societies under the Bicol Amateur Radio Relay League (BARRL) umbrella gathered for two days for the first ever Field Day in District 4.

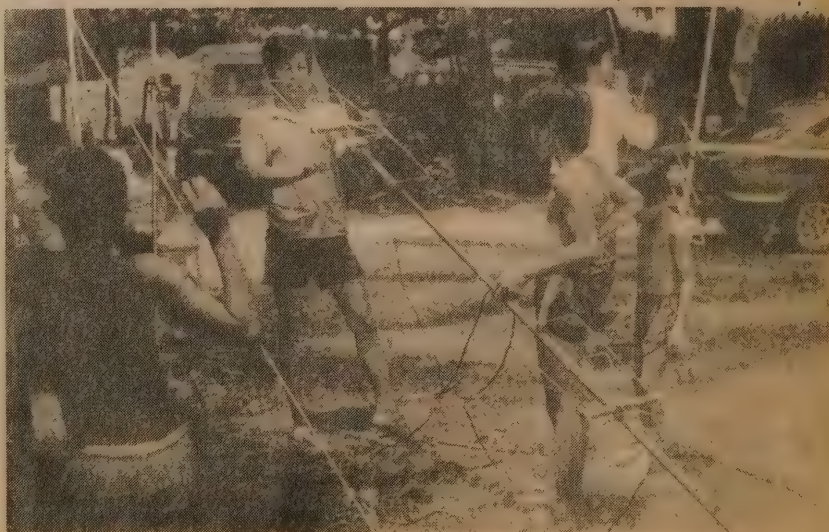
They came in family cars, motorcycles, some took public utility vehicles; some came alone, others with the entire family to enjoy typical ham-



Right, SMART comes up with a twin butterfly antenna. Middle, this kid will soon be brewing his own butterflies. Far right, Dr. Jose Tolentino, DV4AD giving the Sorsogon Amateur Radio Association's (SARA) entry, a quad, its final touches.

Antenna brewing, CW-copying, DX on HF had these hams full. This friendly competition had everyone winning his own game. Including Ino Roa, DU1ROA/4, Huan Ling Lao of MARC and Berting Sioson of SARA who went hunting in the nearby mountains of Sorsogon. Oh, the "one that got away" could make a beautiful stuff.

It was fun, all the way. And the contests' overall champion was amateurism in District 4. ♦

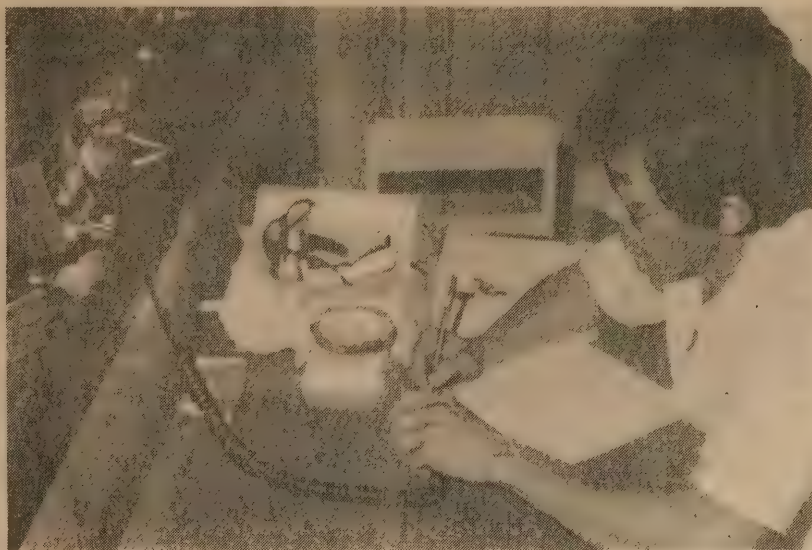


CO

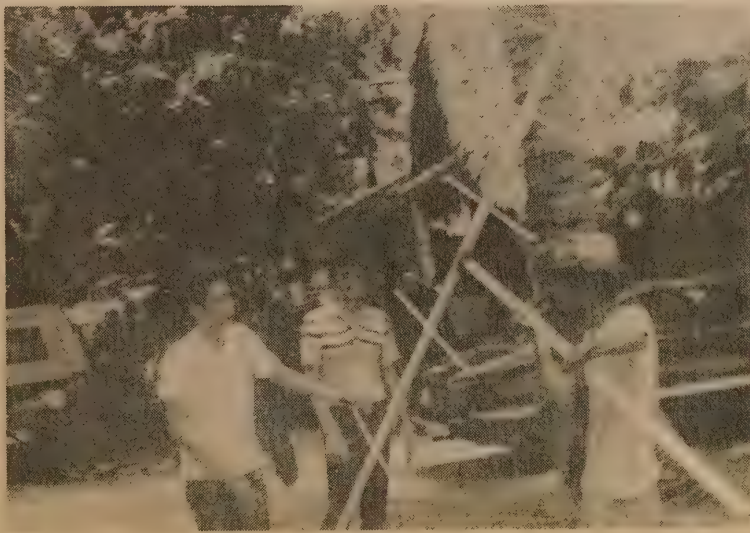
INVITATIONAL DAY

as well as to bask in the splendor of Ba-
nach, a popular summering hole hereabout.

mentarily forgetting the hustles of city life,
participating hams, their families — each set to
take the purpose of their being there. Left,
Y. Bongalon with Frank Sallena of MARC
e Amateur Radioworld brewing a yagi. But
gain, them bulges! Right, Orlando Liao of
doing his turn during the HF DX contest.



Far left, BARRL president Jun Balce, DU4AV CQing for some precious points. Middle, CW-copying contestants Bong Maigue (with glasses) of Radio Information Group (RIG), Orly Liao of the Special Mayon Amateur Radio Team (SMART) and TAR publisher-editor Susan Bongalon of the Mayon Amateur Radio Club (MARC). Bong Maigue came out winner. Left, RIG homebrewers finishing a super 7 twin yagi which later registered a +4 signal report from Bacon to Legazpi City.





NEEDED: A REDEFINITION

Julio R. Viernes

Drawn by the strange rituals, I stayed with the old man, enduring both his silence and the mysteries. Just as he was tempering the mass, a child's spite came into; water pistol and all became one act of destruction, drenching both the old man and the lamp. Flame and man stood still. He took my hand, but instead of the expected blow, fitted my finger with a wire, and taking it off, shooed me away. From the distance, I saw him repeat the entire process, piecing each phase into the entirety of his purpose. And when moments of remembrance would cross, the perception of persistence would re-echo: "so there seems to be no other way for man but to try and fail and try again. Quaintly, despite frustration, he remains in love with life and with himself. This is perhaps the crowning absurdity of his present state. But it is also the greatest hope for his future."

The old man haunched over the array of tools, shards of metal about him. For a time, he sat without moving, like the old generator set beside him, a body that have lost the vitality of motion, sleep being its last desire. But sleep was farthest from the old man's mind; his eyes was riveted to the mass of metal that once was a peseta; his stare transforming the indeterminate blob into an image known only to himself.

Finally, motion found him. The flame of the kerosene lamp, spark to all frames of events, gradually turned into a sliver of white heat, coaxed by the decisiveness of his breath. The blob turned into a puddle of silver, cooled and now malleable. With a tweezer, the old man placed the drop-let on the anvil, and the staccato of carefully placed blows crowded his workshop; silence would momentarily lord, but only for a fragment of a minute.

He continued with his tinkering, certain that my intrusion would now be infrequent. One day he called me, and slipped into my finger the results of his labor, a silver ring. And he would return to his workshop, each time gifting a child of his son's children with the band that proclaimed both his love for his kin and his craft. Men would visit his workshop, each would leave with the knowledge of his craft. To eat, he was a farmer; to live, he was a platero, a silversmith.

Ideals, at times inchoate, would persist in the consciousness. Discussions and dissensions would arise, but issues would remain unresolved. So too would the questions of ideals, because amateurs so cherish the concept, would be posed. The redefinition of amateurism would become fundamental, each claim as valid as his own reality. But the answers would remain as individual as the proponent, con-

tention remaining as mere hypothesis. And the question would be left unanswered.

What then is the end that weld amateurs to their sets? Is the widening circle of friends the answer. Or is it the invaluable assistance the community has so learned to expect from this band of men? Or is it that incessant quest to perfect the craft, to advance the medium in form and efficiency, to home-brew the perfect set. Would the use of the medium, even on rare occasions, to advance some ventures or enterprise a debasement of the ideals of amateurism. What constitute an infraction of the code, of the ethics?

Dulce or utile, the answers remain and are saddled with some other burdens that are the handiwork of men professing love for the circle. Commonness would have brought the redefinition into a conclusive phase, but then voices have stemmed the move into an aborted ideal. A redefinition may not be in order if the minds would have met. Events, apparently, are leading the enthusiasts to a diaspora they have unwittingly invited.

Lemmings plunge into the ocean with a purpose: to die. In the act that amateurs are taking, the lemmings may have one advantage over them, at least, they have a sense of direction, aware that their final act would insure continuity. Sans the direction, would the real meaning of amateurism take hold? Is the definition, at this moment, still valid?

Thus, would the special gift that gave amateurs entry into the world of radio, of that mysterious force, band them together into one recognized ideal, of one concept. Love or the want of it would be the ultimate answer. ♦

Important Events in Radio

PEAKS IN THE WAVES OF WIRELESS PROGRESS

(Last of a Series)

1918.—The trend of progress toward continuous-wave communication as distinct from that by damped waves was very marked during this year, a particular impetus being given by the continued development of the electron tubes as an efficient receiver and generator of undamped oscillations. Steady improvement was also evident in the arc form of generator which was installed in many new high-power stations.

Wireless telephony also progressed to a marked extent, particularly in the direction of reliability and increase of range, due mainly to the development of valve generator and receivers.

At the end of the year a high-power station, erected by the United States Government, was opened at Croix d'Hins, near Bordeaux.

In the Argentina the erection of a station destined for direct communication with the North American continent was commenced in the vicinity of Buenos Aires.

On July 31 the United States Government took over all wireless land stations in the United States, with the exception of certain high-power stations, which remained under the control of commercial companies.

On Sept. 22 messages transmitted from Carnarvon were received in Sydney, 12,000 miles away. Cable confirmations of these messages were

sent forward at the same time but were received some hours later than the corresponding radio telegrams.

In April a high-power station was opened at Stavanger, Norway, for the use of the Norwegian Government. The station communicates with the United States.

1919.—During the year the Radio Corporation took over the radio interests of the American Marconi Co.

The war-time ban on private and experimental wireless stations was removed.

1920.—The steady development of continuous-wave wireless stations was continued during the year and some further progress made in the commercial application of tube apparatus.

On Jan. 25 a new high-power station was opened at Monte Grande, Argentina, call letters LPZ.

Bordeaux, France, high-power station opened.

1921.—The Nobel Prize for physics was awarded this year to Professor Edouard Branly (Paris) for his researches in radio.

The progress made in amateur and experimental wireless is exemplified by the attempts made in February and December of this year to effect communication on short wave lengths between the wireless amateurs of the United States and Great Britain. The first attempt was unsuccessful, but during the second test signals from many American amateur stations were heard both by British radio amateurs and by the representative of the American Radio Relay League who was sent over for the tests. The signals were also heard in Holland.

The American Radio Relay League held its first annual convention in Chicago, Aug. 30-Sept. 3, at which many thousands of amateurs of the United States were present.

The first licenses for broadcasting stations were issued in September of this year.

New York radio central station opened on Long Island.

1922.—During this year broadcasting stations increased rapidly in keeping with the great interest taken in the art.

On June 7, E. H. Armstrong read a paper before the Institute of Radio Engineers on some recent developments by him of regenerative circuits. Professor Armstrong was granted a patent for the super-regenerative circuit.

Experiments in radio telephoning from ship to shore were conducted during this year. In tests from the steamship *America* it was proved possible to communicate with land telephone stations more than 400 miles distant from the ship.

(Page 36 pls.)



**Amateurs started
the hobby with
spark-gap transmitters.
Then they moved to
transistors. Their
incessant curiosity
and eagerness to try
anything new, often
give surprising results.**

IARAC...

a clear-cut direction affecting the amateur radio service in this country," and the body would be "composed of a Chairman, Vice Chairman and nine (9) Councilors."

In particular, this old council would: a) advise the Commissioner in policy-adoption and in "promulgation of rules/regulations necessary to carry out such policies and objectives affecting the amateur radio service..." b) monitor radio amateurs' organizational structure seeking to promote harmonious relationships among ham societies. . . c) provide consultative services, preparing position papers, as regards international conferences on communication matters to be participated in by the country. . . d) recommend representatives to international conferences and make proposals for preparatory arrangement if the country plays host to any international hamfest/meeting. . . e) attend "to such matters as are desirable in its consultative and/or advisory capacity or as may be directed by the Commissioner."

Within this defunct council's context — the chairman, vice-chairman and councilors would be appointed by the Commissioner, who was also empowered to change the composition of the membership of the council whenever he "deems it proper and necessary for its effective functioning." Here, the Commissioner could also designate a Secretary General for the body's "secretarial/staff activities." The council would meet once every three months or "as often as may be necessary, or when directed by the Commissioner." And upon formation of this council. . . "All amateur radio organizations, whether national or regional, are hereby called upon to closely coordinate their organizational

activities with the Council and to cooperate in the implementation of this Circular."

And so the ARAC was formed and on January 13, 1981 Commissioner Carreon, also acting as the Council's Honorary Chairman, appointed and swore into office the following who were to form the initial nucleus of this communication body:

Col. Alberto Espinosa (Chief, NTC radio regulation & licensing department) as Chairman; Jose J. Tupaz, Jr. (of PCARS) as Vice-Chairman; Atty. Kathleen Heceta (chief, NTC legal affairs department) as Legal Adviser; Rogelio Tandingan (chief, NTC financial and administrative department) as Secretary General; Juan Escobar (DU1JE) as Councilor & Liaison Officer; Vincent Rurreccion (DU1REX) and Emeterio Orbe (DU1EO) as Councilors.

There were several seats yet unfilled in the Council in this Commissioner Carreon's initial exercise of his appointing power, per Memo-Circular 06-08-80. It would be learned however, that the Commissioner already had considered the seating of PARA's Donnie Poblador and Roberto Garcia and two others to the Council, following recommendation from the first set of appointees.

But the move towards completing a line-up of entities to compose the said Council was to be disrupted by a letter from an intense ham-and-movie personality, Jose Mari Gonzales who, upon learning about the ARAC creation, would question the credentials of some appointees to the Council. His protest letter was addressed, of course, to the Commissioner.

Gonzales' letter, containing in part

some remark accusing some ham-personalities of having dubious circumstances, would certainly disquiet the world of this small group of creatures possessing exclusive knowledge of the ARAC existence. The said letter, in a word, put a halt to the ARAC's seeing the dawn and its total function. The NTC, as far as the Commissioner (and his "task force" on radio amateur matters) were concerned, had to think twice, then faltered, in pursuing the ARAC concept.

Then confusion. . . and indecision.

The Aftermath

Thereafter, no convening of the ARAC whatsoever was done by the Commissioner; the ARAC would become like a piece of insignificant document set aside to gather dust inside an archive.

A long wait. . . until ARAC expired naturally, as NTC gave birth this time to an interim council: The IARAC.

But in between ARAC's birth-death period and the rise of the IARAC was a controversy of ham talks, claims, intrigues, counterclaims. This and that side of the ham scene discharged some "tempest in the teapot," Philippine ham times became a day of multiple sides to a singular matter.

As long as our ham leaders do not close their minds to possibilities, IARAC may yet emerge as a signal accomplishment. Meantime emotions may explode, ego tripping maybe the rule of day but if meetings continue to be attended by all parties there is no cause to despair.

Photo shows the Council in its two most recent meetings in Quezon City Sports Complex (Feb. 29) and NTC Conference Room, Quezon City (April 6).



And Engineer San Juan, the NTC boy whose countenance and smile is a fixture in today's local ham scene, and apparently affected now by this council controversy, would have to give his side(s) of the matter.

First on the ARAC (mis)happening. San Juan's line was that the Commissioner had to call off the whole ARAC idea. San Juan said the NTC realized that the system of the ARAC creation was rather "arbitrary in nature." And a "need for modification is very necessary."

So there followed a modification. Memo-Circular No. 1-01-84 came into picture.

And on this system now governing the IARAC, San Juan would say that in its entirety, the structure of the formation of this interim council is basically experimental. Meaning the NTC and the now-council are open to possibilities. . . and protests and demands arising out of this experimentation.

"I do acknowledge those critical comments, even those direct protests. . ." San Juan made this clear. But to him, it's still premature to fully attend to all these complaints from the disenchanted hams. As all these are to be contained in an interim period — "The council's term of function is from March 1, 1984 to June 30, 1984, which, however, may be extended by the NTC as the circumstances may warrant. . ." San Juan argued there was not yet a complete communication between the being-formed council and the NTC. Meaning, an angle of permanence as to the existence of the council has yet to surface.

Rock the Boat

Meanwhile, on the IARO protest, San Juan would react with: "they approached the wrong forum when they brought out their complaint during the proceedings of the first IARAC meeting. . ."

He, San Juan, would opt for another forum to make his official stand on these matters of protest — he would wait for the next IARAC meeting, the second one, to fully declare his side of the matter. This next meeting took place April 6.



SUNNY SIDE. Whatever difficulties IARAC may now be faced with will surely come to pass unless IARAC passes out first. But hams have a way of weathering the worst of odds. NTC Deputy Commissioner Antonio Barreiro (second from right) feels "confident they (the ham-leaders) could resolve things among themselves."

This time, the scene of the IARAC meeting would be the air-conditioned NTC conference room.

Came the day of the meeting: 2 p.m., a Friday.

Present, in the first half portion of the second meeting, was Deputy Commissioner Barreiro. Engr. San Juan was, of course, there in the vortex of this gathering. The IARAC entities who attended the gathering were: Jose J. Tupaz, Jr. of PCARS, Donnie Poblador of PARA, DU1NG of District 1, DU2BR of District 3, Atty. Edna Roa (representing Mr. Ino Roa) of District 4, DU1BLB of District 5 (whose district club, EVARCI, remains unrecognized by the rest of the council and the NTC), Caesar Ong of District 6, DU1LOG (representing Donnie Poblador who stood for District 7), Patricio Cabato (represented by his wife) of District 8 and some observers (Booby Lim, Butch Braga of the TAR staff, Tirso G. Parpan, Juan Escobar, Fernando Monfort, this writer).

As to what happened. . .

Right off, as the meeting was called to order by the Chairman of the interim council, PCARS's Jose J. Tupaz, Jr. declared that he was filing his group's protest with the Commission, "in the hope that corrective measures will be immediately undertaken to forestall further disunity in the amateur radio service instead of unity as mandated by Memorandum-Circular No. 82-077 (the Revised Amateur Radio Regulations, promulgated by the Ministry of Transportation and Communications on 20 October 1982). . ."

Mr. Tupaz handed a 5-page protest-memo to Engr. San Juan, who couldn't but exude a visible expression of apprehension on the position taken now by Tupaz' PCARS.

Deputy Commissioner Barreiro read the protest paper, attached to which was a letter dated 8 March 1984 addressed to Commissioner Carreon and duly received by the NTC through Engr. San Juan's office (on 19 March 1984), and upon learning that the submission of the said attached letter had yet to reach the Commissioner (who was set at that time to leave the country to attend an international conference on Telecommunications), he would right there and then exhort San Juan: "You should have informed

(Page 26 pls.)

IARAC...

us immediately about all this protest upon your receipt of the letter!" Then the Deputy Commissioner had to admit in the face of the body that "We are to blame for the..." well, Barreiro, perhaps, meant: the unsatisfactory result of the first meeting of the council... giving rise to these protests and complaints. "I thought," Barreiro added, "when the Commissioner and I left before the meeting proper started last Feb. 29... I was confident they (the ham leaders) could resolve things among themselves."

The main issue would crop up.

"Undue haste in choosing the name of the interim council, and ma-

king it appear PARA had already been chosen as the national organization."

Even Mr. Barreiro would have this to add: "I was disappointed to learn that after the first (IARAC) meeting, the name of the organization had already been chosen." He felt that the council should have been fully organized first before that matter was taken up.

Some moments of discourse (punctuated by laughter). After which, the Deputy Commissioner would leave the proceedings as the meeting proper was about to start. He gave the same reason as when he left the ham leaders

during their first meeting at the Quezon City Sports Complex. Then Mr. Tupaz would also excuse himself, saying he could not attend the meeting's proceedings on account of an appointment with his eye physician (Tupaz is suffering from some eye illness). He was to be followed to the door by his loyal friends (DU1BLB and DU1JE). The rest of those present remained for the meeting proper (it was 4 p.m.).

A quorum was determined. "Now let us all be businesslike..." announced Chairman Poblador. DU1NG, the council Secretary followed with his, "the important thing now is for us to concentrate on the structural program for the council/organization..." But those others present felt that the "stability" of the council could possibly be affected by the protest filed by PCARS. The meeting went on, nevertheless. But not without the proverbial Damocles' sword hovering about. Who would not doubt then that the efforts in setting up this interim council might go to nothing?

And Engr. San Juan, the council's "very special" observer, had nothing for the moment but to give off his line of — "If only we could do away with the scrutiny of procedural and legalistic aspects of this council thing... if only *they* could agree on the present system being adopted by the NTC on this council-formation..." But to San Juan's dismay, the world of radio amateurs is not without differences; somehow, in some manner, somebody had to raise one's fist to the wind caused by the NTC's system of creation of this controversy of ham councils.

No matter what, the NTC has to consider the gist of PCARS' protest:

"Petitioner filed a... protest to this Honorable Commission, which questions the proceedings and/or conduct thereof, and requests for a formal investigation of the proceedings, and the creation of an impartial committee to rectify the situation and that pending a resolution thereof, the Interim Amateur Radio Advisory Council be restrained from further proceedings until the questions or issues involved therein have been resolved to the satisfaction of all concerned..."

Ham business in relation to IARAC is indeed unfinished business. The quest does not rest here. ♦

Republic of the Philippines
Ministry of Transportation and Communications
BUREAU OF POSTS
Postal Region 5
Legazpi City 4901

SWORN STATEMENT

(Required by Act 2580)

The undersigned, **SUSAN S. BONGALON** editor/owner/publisher of "THE AMATEUR RADIOWORLD" (title of publication), published monthly (frequency of issue), in English (language in which printed), at Rm. 24 PVLB Bldg., Peñaranda St., Legazpi City (office of publication), after having been duly sworn in accordance with law, hereby submits the following statement of ownership, management, circulation, etc., which is required by Act 2580, as amended by Commonwealth Act No. 201.

Editor: Susan S. Bongalon, Al-Bay Subd., Bonot, Legazpi City; Business Manager: Roger Y. Bongalon, Al-Bay Subd., Bonot, Legazpi City; Owner: Susan S. Bongalon, Al-Bay Subd., Bonot, Legazpi City; Publisher: Susan S. Bongalon, Al-Bay Subd., Bonot, Legazpi City; Printer: Shaner's Printing Press, Bonot, Legazpi City; Office of Publication: Rm. 24 PVLB Bldg., Peñaranda St., Legazpi City.

In case of publication other than daily, total number of copies printed and circulated of the last issue dated **March, 1984**.

1. Sent to paid subscribers	626
2. Sent to others than paid subscribers	338
Total	964

(SGD.) **SUSAN S. BONGALON**
(Signature)

EDITOR-PUBLISHER
(Title or Designation)

SUBSCRIBED AND SWORN to before me this 28th day of **March, 1984** at **Legazpi City**, the affiant exhibiting his/her Residence Certificate No. 34993050 issued at **Legazpi City** on **January 5, 1984**.

NOTE: This form is exempt from the payment of documentary stamp tax.

(Officer Administering Oath)

(SGD.) **CESAR C. DAEP**
NOTARY PUBLIC
Until June 31, 1985

"Can you hear me between your signals and if so can I break in on your transmission."

QSK

done missed so much of the message, you practically gotta ask him to send the whole thing again. Life would be simpler if this kind would keep you in the dark about the up-to-dateness of his gear an' operatin' ability.

They ain't no doubt: Break-in's about the handiest thing since the invention of the ham sandwich. Only thing I can think of would save more wasted effort would be a law against callin' CQ DX. Unfortunately, they is some aspects of break-in that's about to give me apoplexy.

One is the guy which proudly tells ya QSK an' then drops into a short fade in some part of the message. You hit the key — he keeps on sendin' — you hit it gain — he keeps on sendin'. In desperation, you lather the ether with a string of dahs — he keeps on sendin'. By this time, you

Another madennin' case is the guy who ain't gonna waste no time lissenin' to you send stuff he doesn't know what it means. Let him miss a letter and BLAM! he's in there breakin' you. It don't make no difference that what he woulda copied was "R OSEVELT." He breaks when he misses that first O. Even if it was gonna be a hard name, like, mebbe, "CZIERNUWICS," he ain't willin' to copy as much as he can an' then try again when I repeat it. He breaks me after the first Z. Put me together with one of these apes, throw in a little QRN and in about two minutes, if I had a radio matter-transmitter like them science fiction novels, I's give him a fat lip. ♦

W4UQ





WHAT'S ON SHORTWAVE?

WAVESCAN

Luis Sevilla, SWL



DX NEWS

Station ETLF in Addis Ababa, Ethiopia, was noted to be using a frequency in the 16-m. band with the familiar four-note drum interval signal at about 1450 HR. Programming was believed to start at 1500 HR. but its signals died down due to intense QRM from an adjacent station. ETLF is a missionary station serving the Indian Subcontinent and Africa.

Radio France International in Paris, was noted several times last month on 11995 kHz. in the 25-m. band at 2200 HR. It was transmitting to South America using the Portuguese language. Station ID was in French, Spanish and Portuguese. It could also be heard on 11965 kHz. Its announcement in Spanish stated that it was using parallel frequencies in the 49, 31 and 19-m. bands. Possibly, this station is the former Office Radio Televisione Francaise (ORTF).

All-India Radio in New Delhi, operates on a frequency in the 31-m. band from 2100 up to around 2230 HR. Programs consist of news, commentaries from the Indian press, Indian music, etc.

Radio Korea in Seoul, has been noted on frequencies in the 19 and 31-m. bands at 2200 HR. Its signals are very strong.

British Broadcasting Corporation (BBC) was heard at about 0325 HR. in the 19-m. band with strong signals. Its transmission was directed to Africa.

Radio Australia in Melbourne, has been using 15395 kHz. in the 19-m. band for some time now. Reception on this frequency is good because of strong signals. It is believed that Radio Australia uses its 250 or 300 transmitter for this frequency in its transmitting site in Carnarvon, Western Australia.

Voice of America
Washington, D. C. 20547

February 23, 1984

Dear Mr. Sevilla:

This is in response to your letter of January 4. We appreciate your completing the survey form, and are pleased to grant you permission to use the "Jamming Update" article on page 14 of the January-February issue of VOICE magazine.

Thank you for your interest in the Voice of America.

Sincerely yours,

(Sgd.) Sherwood H. Demitz
Acting Chief
Audience Relations



STATION NEWS

Radio Australia is reconstructing transmitting facilities in Darwin, Northern Territory. In December 1975, its former transmitting site was devastated by Cyclone Tracy, killing a transmitter operator. The Australian Broadcasting Commission then, decided to transfer the Darwin facilities to Carnarvon, Western Australia. In spite of the fact that a 250-kW. transmitter has been in use in this transmitting site, good reception in the target areas was not always warranted. The Australian Broadcasting Corporation recently added a new 300-kW transmitter in order to boost Radio Australia's transmissions to Europe and Asia. Radio Australia also transmits from two other older transmitting sites, i.e., Lyndhurst and Shepparton in Victoria. Radio Australia will be heard again loud and clear in our area just like a local station even at daytime.

Radio Japan is now utilizing a 500-kW relay transmitter in the Moyabi Transmitting Site in Gabon, Western Africa. The new transmitting site has all the facilities for direct or relay transmissions, consisting of four 500-kW transmitters, several curtain antennas and one log periodic antenna. A project of the Gabonese government, it is managed by the company "Africa No. 1." Gabon is situated on the equator and so an ideal location for a shortwave transmitting center. Moyabi's facilities are available for lease to other countries just like those of Radio Trans-Europa in Sines, Portugal. Incidentally, Radio Japan's broadcasts to Europe and the Middle East relayed through this station have been received by listeners with great improvement.

Vatican Radio covered the recently concluded trip of Pope John Paul II to Asia and Oceania. Correspondents of Vatican Radio were travelling with the Papal party and reported the Pope's significant activities to Vatican by overseas telephone. Vatican Radio broadcast the daily coverage to our area in its 2200 to 2225 HR. transmission. In addition, during the Holy Week, Vatican Radio made live coverages of the Holy Week festivities, like the Easter Vigil, which was heard in our area with the Pope using the Latin language and two announcers making short summaries at regular intervals using English and a Chinese language.

It should be noted that since May 6, the first Sunday of the month, until September 1, shortwave stations observe their summer schedules according to international agreements.

Happy listening and 73.♦

*All times mentioned are in Coordinated Universal Time (UTC).

HF ALL BAND SSB CW AM TRANSCEIVER

IC-730



GO HF MOBILE, BASE, FIELD DAY
PORTABLE WITH ICOM'S GO ANYWHERE
RIG FOR EVERYONE'S POCKETBOOK

COMPACT.

94mm(H) x 241mm(W) x 275mm(D) will fit into most mobile operations (compact car, airplane, boat, or suitcase)

AFFORDABLE.

Priced right to meet your budget as your main HF rig or as a second rig for mobile/portable operation.

CONVENIENT.

- Unique tuning speed selection for quick and precise QSY choice of 1KHz, 100Hz or 10Hz tuning.
- Electronic dial lock, deactivates tuning knob for lock on, stay on frequency operation.
- One memory per band, for storage of your favorite frequencies on each band.
- Dual VFO system built in standard at no extra cost.

FULL FEATURED.

- 200W PEP input - powerful punch on SSB/CW (40W out on AM).
- Receiver preamp built-in.
- Noise blanker (selectable time constant) standard.
- VOX built-in.
- Large RIT knob for easy mobile operation.
- Amateur band coverage 10-80M including the new WARC bands.
- Speech processor built-in.
- IF shift slide tuning standard (pass band tuning optional).
- Fully solid state for lower current drain.
- Automatic protection circuit for finals under high SWR conditions.
- Digital readout.
- Receives WWV.
- Selectable AGC.
- Up/Down tuning from optional microphone.

HF/VHF/UHF AMATEUR AND MARINE COMMUNICATION EQUIPMENT



ICOM ICOM INCORPORATED

1-6-19, Kamikurazukuri, Hirano-ku, Osaka, Japan

PHONE: (06) 793-5301

CABLE: ICOMTRCVR TELEX: 05277822 ICOMTR J

"I contacted the King! Is it true? Isn't it an April fool joke?"

King Hussein's QSL card sent to Takao Kumagai, JA0CUV/1 (right). Below, TAR artist's version of the King's portrait.

Gilbert Islands and Tuvalu, the Fiji Islands, the New Hebrides Islands under joint Anglo-French trusteeship, and the British-governed Solomon Islands.

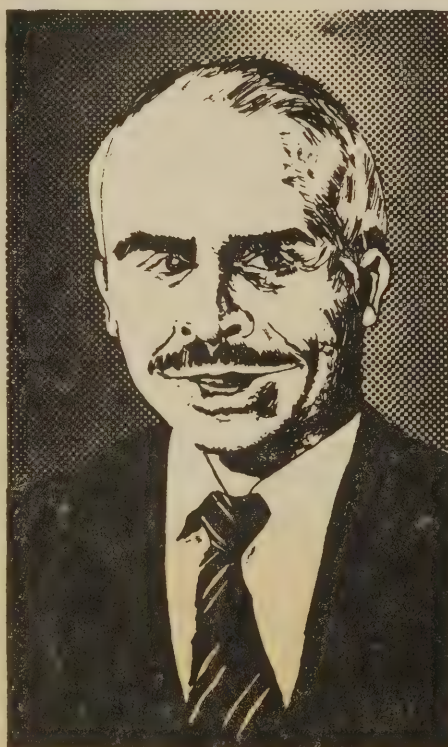
Talking of trips to South Sea islands may sound very romantic, but for Kumagai, sightseeing is not his first consideration. Wherever he travels, he sets up his transmitter in his hotel room and continues signalling "CQ, CQ, . . ." from morning till after midnight.

This keeps hotel bellboys and natives wondering, "Visiting a place like this from far away, this guest does not do the sights at all but only keeps tinkering with his radio set. Why?"

Overcome by curiosity, some of them will even stop Kumagai in hotel corridors to ask, "Are you a radio official sent here by your government?"

Meanwhile, hams all over the world are delighted to tune-in on Kumagai from places where hams are seldom found. For the average ham, it is almost impossible for him to contact such distant areas, and to contact such areas is a matter of great pride to him.

Hams in Australia, Europe, and the Soviet Union, not to leave out the United States, have shown an intense interest in radio signals from Kumagai, and have flooded him with requests to exchange QSL cards. Believe it or not, in a short period of the past one month, Kumagai communicated with as many as 18,000 amateur radio operators in those parts of the world, and QSL cards sent to him from those ham operators literally fill in his small Tokyo dormitory room. It is said that Kumagai, even now, receives cards from overseas ham operators at the rate of 20 a day.



The most memorable event he has experienced during his travels was an encounter with Mr. and Mrs. D.E.C. Lockyer on Gilbert Islands. He had long been on friendly terms with the couple. Since mail service on Gilbert is not satisfactory, Kumagai acts as "manager" for Mr. Lockyer, forwarding his QSL cards to hams in other countries in Mr. Lockyer's stead.

The couple are already in their 50s, but their friendship, formed through amateur radio, is so strong that the differences in nationality and age, let alone the language barrier, do not matter at all to the three.

While on Gilbert, Kumagai was invited to stay with the couple at their home, and he enjoyed chatting with them far into the night about amateur radio, their friends all over the world, and their home countries.

Radio waves know no boundaries. According to JARL, there are about 750,000-amateur radio operators scattered throughout the world, and in Japan alone, there are some 280,000 such operators. These ham radio operators are solidly united in one hobby, aloof from the differences in social system, age, occupation, social status, and language. To Kumagai, this reality always provides a fresh revelation and source of joy.

Tonight, also, radio signals will be travelling through the skies above the earth from a suburb of Tokyo calling: "CQ, CQ, . . . This is JA0CUV/1 . . ." This is Kumagai's call signal to renew his friendships with old friends and also to win new friends among the ham radio operators all over the world. ♦ **Pacific Friends**



A WIND RESISTANT QUAD

ADVISOR

Engr. Cielito Vita

The sturdiness of a quad is directly proportional to the quality of the material used and the care with which it is constructed. The size and type selected for use with a quad antenna is important because it will determine the capability of the spreaders to withstand high winds.

One of the more common problems confronting the quad owner is that of broken wires. A solid conductor is more apt to break than stranded wire under constant flexing conditions. For this reason, copper stranded wire is recommended. For 20-, 15-, or 10-meter operation, wire size number 14 or 12 is a good choice. Soldering of the stranded wire at points where flexing is likely to occur should be avoided.

Connecting the wires to the spreader arms may be accomplished in many ways. The simplest method is to drill holes through the fiberglass at the approximate points on the arms and route the wires

through the holes. Soldering a wire loop across the spreader is recommended. However, care should be taken to prevent solder from flowing to the corner point where flexing could break it.

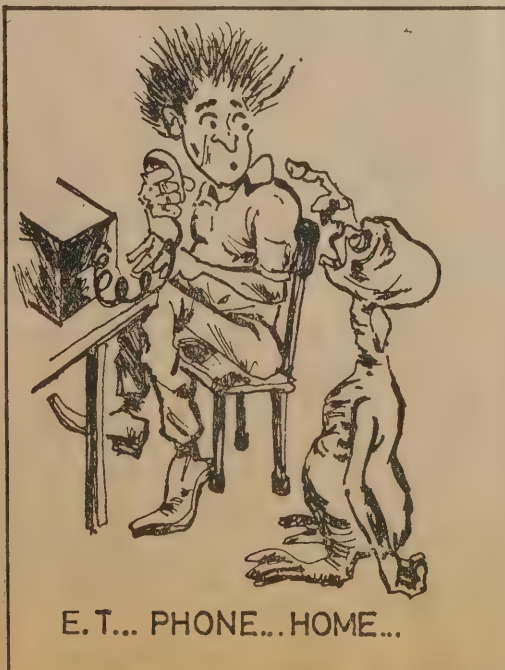
Dimensions for quad elements and spacing have been given in texts over the years. It is generally felt that 'quads are not very critical in their tuning, nor is the element spacing very critical.

A boom diameter of 2 inches is recommended for systems having two

or three elements for 20, 15 and 10 meters. When the boom length becomes 20 feet or longer, as encountered with four— and five-element antennas, a 3-inch diameter boom is highly recommended. Wind creates two forces on the boom, vertical and horizontal. The vertical load on the boom can be reduced with a guy-wire truss cable. The horizontal forces on the boom are more difficult to relieve, and the larger size of 3-inch diameter tubing is desirable.

There are, generally speaking, three grades of materials which can be used for quad spreaders. The least expensive material is bamboo. Bamboo, however, is the weakest material normally used for quad construction. It has a short life, typically only a few years, and will not withstand a harsh climate very well. Additionally, bamboo is heavy in contrast to fiberglass, which weighs only about a pound per 13-foot length. Fiberglass is the most popular type of spreader material, and will withstand high winds. One step beyond the conventional arm is the pole-vaulting arm. For quads designed to be used on 40-meters, surplus "rejected" pole-vaulting poles are highly recommended. Their ability to withstand large amounts of bending is very desirable. The cost of these poles is high, and they are difficult to obtain. Those interested should check with sporting goods manufacturers.♦

*This month's **ADVISOR** is very much a technician. Before getting hooked by ham radio he was with commercial broadcasting. (We understand he is at it once more. Ed.) Engr. Vita hails from Sorsogon and most active as an officer of the Society of Hobbyists and Amateur Radio Enthusiasts (SHARE) based in the province. This article is his second contribution to **TAR** (see page 18, April issue).



E.T... PHONE... HOME...

THE STATE ...

country," DU1RFA sadly took note. How few? "Only 40!"

But, one would wonder, what does DXing really mean, significantly that is, in one's hamming life? What lies in the state of the 10-15-20-meters that hams should develop much concern for it?

DUIFH had his emotional reaction to this. "But when you go HF... you instantly become your country's 'ambassador'! You represent the Philippines, and come out as reflection of your native land, as you talk over the air with hams from other countries and exchange QSL cards with them."

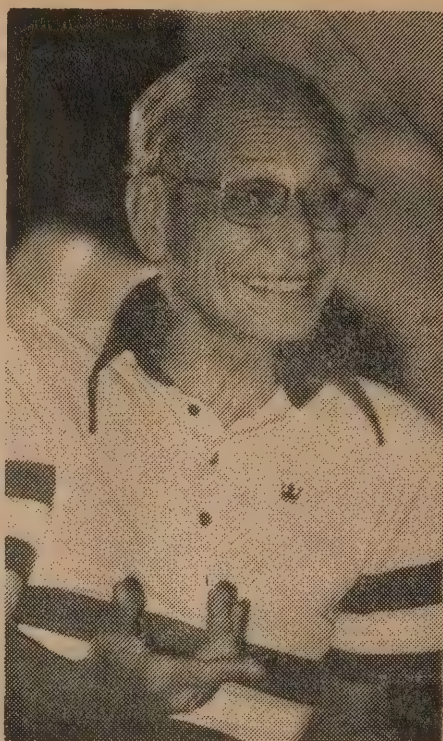
(In Mr. Hashim's QSL card he had put in prominence the Pearl of the Orient. "We promote our country via this operation." Meantime Mr. Azada was enthusiastic about that bahaykubo image emblazoned on his card.)

But more than representing one's country, to these two seasoned hams and DXers, the art of DXing means to reach some total ham-wish fulfilled in its season.

And it is the wish of Messrs. Azada and Hashim to see the art of DXing fully developed and embraced by authentic hams in this country. They started working for the fulfillment of this wish through some ties with the "boys" from the Don Bosco Technical College Amateur Radio Club (DBT-CARC), now on its third decade of electronics experiments and DXploits (see TAR January 1984 issue).

They love them, the Don Bosco youngsters. "They are very electronics-oriented," said Mr. Azada. In 1962, when some of Mr. Hashim's children were studying in the school, he devoted himself instantly to teaching developing young hams there, upon learning that they had been that interested in the art. He did not stop from there. He taught them how to put up radio stations and assemble antenna systems. Afterwards, the result... a cosmological smile on the face of Mr. Hashim, as his proteges garnered awards after awards on DXing.

Said Mr. Azada again: "These young boys are very active, and have all the potentials to become hams in the fullest sense of the word." He said



Fred Hashim, DU1FH, "purified, secure, wise..."

that if fifty percent of the existing ham population in the country could possess the kind of consciousness and drive these some 60 or 70 young boys from Don Bosco possess, there is no reason for the local hamming art not to prosper and mature into a real communications structure. Mr. Azada had special mention for Ricky Maipid (DU1DBT) who is one of the top young hams in Don Bosco. "We are both regarded as something by PARA, in terms of DX awards, and imagine, the two of us now competing with each other on HF operation!"

Mr. Hashim could only utter amen, amen to all this.

The world of Mr. Azada and Mr. Hashim apparently is defined by intense DXing. And over the years of their existence as real DXers, they have nurtured this ham consciousness in them with a concern... which cannot help itself but tie up with this curious idea of some absolute ham-reality. They have been concerned with their freedom over their DX operation, their aims, the natural limitations placed upon those aims, and their conflict and harmony with the amateur radio world into which they see themselves emerge.

They emerge, but not without affirming the realities of ham existence

in the country. And these realities are the limitations they meet on their way to DX totality. There are indeed limits to growth as regards the art of hamming, much more DXing in DU land!

Both Mr. Azada and Mr. Hashim admit that they are at a loss for what right reason to attribute to the many existing limitations in the total growth of the Pinoy hamland into authentic DX expanse. The question many a foreign DXer would shoot them whenever they encounter them on HF has always been the same question they met ever since they started devoting their life to DXing: "What's happening to your other DUs... We don't hear anymore from them these days?"

That indeed is the sad hard fact of DXing in the country.

But then somehow, a reason for all these lies somewhere. Is it because of lack of technological knowledge? But no, Mr. Azada would assure us that as far as he observes, "Filipinos are electronics-oriented," judging from a number of Pinoy technicians working not only here but also in other countries like Saudi Arabia. Then what is the real reason?

"I can not give you the real reason why, honestly speaking, for I myself is baffled!" declared Mr. Azada. Mr. Hashim's expression at the moment couldn't have been less baffling.

Beset by the uncertain state of DXing in the country... Mr. Azada and Mr. Hashim would just find consolation in the company of the boys from Don Bosco. In them they would look forward to a more promising world of DX art to develop in the country. How ardent are the two OTs to leave some legacy of their experience and romance with DXing to these young hams in the future, when their material time has to write itself off.

Actually, all is not lost in the life of DU1RFA and DU1FH, in terms of their love for DXing. The boys from Don Bosco will not fail them for sure. As long as these boys are there, the world of Pinoy DXing according to Mr. Azada and Mr. Hashim, limited in movement as it is this side of the IARU Region, couldn't possibly touch bottom. At least with them, through them, real DXing here will be pointed to some meaningful direction. ♦

FIELD DAY...

Then on to another highly-charged portion of the Field Day: the CW event! CW copying competition would start right after the hunting hours; that is, at 10 a.m. It would be an hour-long test of Morse Code mastery among three entries: 1. Bong Mague (RIG), 2. Orlando Liao (SMART) and 3. Susan Bongalon (MARC). RIG came out the winner in this event with 29 points. SMART was second with 15 beating MARC which managed seven points.

On the other hand, the entire period — from 11 a.m. to 1 a.m. (a two-hour event) — had been set for the antenna contest, in which there were two categories and the participating club ratings would be determined by "meter signal reports" via monitorings between the distance of Bacon, Sorsogon (as origin of transmission) and Bonot, Legazpi City (as point of reception).

In the Category I of this event (8 elements and below) the entries for *Twin* were RIG (using a super 7 yagi), SARA (using a twin 7 yagi) and

SMART (using twin butterfly); here RIG would register a +4 signal report to win over SARA's +2 and SMART's "negative copy." For the *Single*, the result of the contest among RIG (using super 7 yagi), SARA (using a yagi 7-element) and MARC (using a yagi antenna) saw SARA emerging first with a +5 signal. RIG and MARC could only manage with +2 and +1 signals respectively.

In the Category II of the same event (4 elements and below) . . . for the *Twin* — it was a contest between SARA (using a Quad), SMART (using twin and butterfly) and RIG (using super 7 yagi) in which SARA became the winner after registering a +7 signal report over the +4 and +1 signal report of RIG and SMART respectively. For the *Single* — MARC (using a yagi) would win a close +4 signal report over SMART's +3 (using a single element butterfly), with RIG (using also a yagi) at the tail end registering only a +1 signal.

The antenna contest marked the

end of the competition proper in this local ham event, when creatures of the hamming art gathered in order to bring out new circuits of experience within the realm of the etherworld culture in which they were immersed. They were there, now gathered for a somewhat late lunch, the meals being provided at this point by DW4AY Roman Chua of SARA.

A program at 2 p.m. followed: contest winners were declared and given due recognition by the organizers of this "First Invitational Field Day (1984)" hosted by BARRL. Towards the end of the "hamboree," amid the excitement was a reaffirmation of the necessity of the organization to the individual; and hams present there doing it so, would have to reaffirm the foundation of societal values and the preferred state of individuals — whether of a business or of a social organization. . . — as something free, as something full of the possibilities of growth and choice and spontaneity, in consonance with the etherworld's pulse beat. . . freedom. ♦

INTERVIEW...

of examinees we attend to. These and the logistical plus manpower supports that we have. We do our best though. Unfortunately, not everyone can be satisfied. We commiserate at this instance.

Results of examinations administered by some government agencies are often subject to suspicion of being tampered with to accommodate some favored examinees. Has the NTC adopted safeguards by which they can be excluded from such suspicions?

Our procedures will explain. For instance NTC gave an examination say in Legazpi City, what is done is immediately safekeep the examination papers in a sealed envelope. This sealed envelope will not be opened until checking time. When the papers are about to be checked, their identification portions are detached. The latter are again safely kept. The portion, or the answer sheet contain no identifying marks but coded control numbers are indicated. A panel of correctors then undertake to check the papers guided by a key to correction provided by the committee of examiners. How then can anyone in the committee or in the panel know who to accommodate? That is what is presently done. The past may have been different, though.

In the USA the FCC is considering the adoption

of a no-code license which means that a class of amateurs can operate without necessarily passing CW test. In another development, the FCC even thinks of conducting examinations to be administered by volunteer hams themselves in the light of logistics and personnel cutbacks. Has the NTC ever thought of matters like these for the convenience of the publics they serve as well as their own, too?

As far as ideas as those are concerned I don't feel we are behind. First of all, we have the legal provisions to fall back on. Take the first case: no-code licensee. International radio regulations give allowance to use 2- until 6-meters. These frequencies could hardly get out of the Philippine territorial boundaries. The international provision is: "whenever the administration feels or thinks that it is right not to give Morse Code, then they'll do so, provided that the operation of the new licensee does not go beyond the borders or territorial limits of the country." But then a no-code licensee can never be satisfied with merely operating within confinement. Sooner or later he will itch for DX. Let's not make matters too easy in the beginning and suffer later. Our systems still work well and conveniently. Perhaps this is not the time yet for us to venture into such circumstances. Meantime, let our imaginations go wild. That's healthy. ♦

Meet Friends Through Ham Radio

ORAL INDUCTS OFFICERS FOR '84, BARES PLAN TO SET UP REPEATER

"Meet more and more friends through amateur radio, for this communication art is meant mainly for friendship. . ."

This is the theme of the Induction Ceremonies for the 1984 officers of the Organized Radio Amateurs League (ORAL) held recently at the Holiday Inn Manila's Embassy Foyer.

Dr. Tony Lazatin, vice-president of the Philippine Amateur Radio Association (PARA), was guest speaker and inducting officer.

ORAL, a group of radio enthusiasts composed of Filipino and Chinese professionals and businessmen, is affiliated with the PARA, and is now in its first year of existence.

Inducted into office by Dr. Lazatin in simple ceremonies were: Ramon Francisco, president; Jun de Guzman, executive vice-president; Simon Li, internal vice-president; Butch S. Murillo, treasurer; Willie Ranaga, secretary; Fred Deloso, PRO; Ramon Salta, executive director; Yu Keng Wi, trustee; and Cristy Manalo, director.

For this year, ORAL projects lined up for implementation, as announced by its president, Mr. Francisco, are: a) putting up of repeater to possibly establish a nationwide linkage with other amateurs from the different radio districts, b) conducting seminars to help clean the amateur airwaves of bootleggers, and c) community service involvement through various civic action missions. ♦

PARA LAUNCHES 3rd ANNUAL DX COMPETITION

More Prizes at Stake

Long distance contact (DX) inclined hams in the country once again had the opportunity to see action as the third Philippine Amateur Radio Association (PARA) annual DX contest reeled off last May 19.

The contest which had at least ten awards at stake formally opened at one o'clock of said date and wound up at one o'clock on May 21. It was open to all licensed amateur radio stations in the country.

It was aimed to provide a venue for all licensed amateur radio operators to establish two way contacts in the form of a contest to generate fel-

lowship and friendship; test propagation principally on the Ultra High Frequency (UHF); as well as promote the 40-meter band for recently licensed enthusiasts.

To achieve these goals, the contest had four categories, these were: single operator base/mobile/portable station; club/multi operator base station; single operator DX station (special call sign); and club/multi operator DX station.

Three operating bands were utilized for the purpose. High Frequency (HF) was limited on 7.000 to 7.100 mHz exclusively for SSB and CW while Very High Frequency (VHF) and Ultra High Frequency (UHF) had 144.000 to 146.000 mHz and 430.000 to 440.000 mHz, respectively, as operating modes.

Contestants vied for the following awards: top scorer single base station operator; runner-up, single station operator; third place, single base station operator; top scorer multi operator base station; top scorer single operator DX station; top scorer multi operator DX station; certificate of award for stations which worked all call areas; trophy for the longest haul on VHF; trophy for the longest haul on UHF; and trophy for the most number of CW contacts.

In Northern Mindanao, Ham X, Inc. also had its Field Day the entire May 5. Venue of the affair was Golden Village Subdivision in Cagayan de Oro City. Charter presentation and induction of the club's 1984 set of officers followed the Field Day on May 6. The event was held at the Ororama Restaurant at six thirty in the evening. ♦

**Radio Amateur Club
of Oriental
Negros, Inc.
(RACONI)
DISTRICT VII**

Amateur Radio.
Our pages define it.
Clearly. Simply.
Readability.
Our business.
THE AMATEUR
RADIOWORLD
delivers.
Read THE AMATEUR
RADIOWORLD,
the only Ham Philippine
Magazine.

NOTE DROP IN AMATEUR RADIO PERMIT GRANTS FOR CY 1983

The National Telecommunication Commission's licensing activities last year was marked by a significant increase in permits for radio station construction and licenses issued for government radio stations on one hand, and a general decrease in the

The general trend, however, was a drop in the number of radio station licenses issued for various categories. Data from NTC showed decreases in the number of licenses issued for the following: ship stations (47.3%), aircraft stations (31.25%), fixed aeronautical stations (100%), coastal stations (11.11%), land base stations (31.84%), land mobile stations (5.01%), amateur stations (37.53%), radio training school stations (38.46%), citizens band stations (74.34%), and various permits and certificates issued (51%).

FCC FREES US HAMS FROM ROUTINE LOGS

The Federal Communications Commission (FCC) recently eliminated routine station log requirements for the American Amateur Radio Service and made several related changes in its rules.

The Commission said the changes would eliminate most of the record-keeping burden previously placed on amateur operators. It estimated that the 413,000 licensed amateurs in the U.S.A. would save more than 300,000 hours annually. The 7,000 to 9,000 amateur operators of repeater stations who ordinarily tape record their third party messages to satisfy the logging requirements will be relieved of that substantial burden and expense.

There is no official need for a record of routine station activities, the FCC observed. It also noted that it rarely used the information recorded in amateur logs, preferring to rely instead on data collected by monitoring. The FCC on its own initiative proposed the new rule more than a year ago.

The changes permit the amateur licensees to keep the few records which the FCC will continue to require in any format that can be made readily available to the agency. Those records primarily concern repeater and auxiliary operation and operation by remote control.

The Commission removed a number of implied operational requirements from the logging rules and placed them in the amateur rule sections to which they apply. It also authorized the Engineer-in-Charge of FCC field facilities to require specific individual station licensees to maintain a record of their station operations for enforcement purposes.

Nothing in the rule changes, the FCC noted, would prevent an amateur licensee from maintaining a station log or including in it any information the licensee chooses to keep. ♦

SUBSCRIPTION COUPON

The Amateur Radioworld
P.O. Box 76
Legazpi City
Gentlemen:

(Date)

Please send me THE AMATEUR RADIOWORLD Magazine for 6 months 1 year. I enclose the appropriate remittance made payable to THE AMATEUR RADIOWORLD.

NAME

COMPANY

PROFESSION

LINE OF BUSINESS

ADDRESS/TEL. NO.

SIGNATURE

(Please print all needed information)

The Chinatown Amateur Society

DISTRICT I

Metro Manila

Philippines

behalf of her husband. VOA Polish, Estonian, Latvian and Lithuanian programs are all currently jammed on shortwave. But on that day, the interference took a new twist: VOA Polish broadcasters on 1197 kHz medium wave were suddenly jammed by a combination of noise generators and the signal of Radio Warsaw, which normally operates on 1206 kHz. BBC Polish medium wave signals received the same treatment. The medium wave interference lasted one day against VOA and two against BBC. Shortwave jamming still continues. ♦ VOICE

Meet Friends Through Ham Radio

ORAL INDUCTS OFFICERS FOR '84, BARES PLAN TO SET UP REPEATER

"Meet more and more friends through amateur radio, for this communication art is meant mainly for friendship. . ."

This is the theme of the Induction Ceremonies for the 1984 officers of the Organized Radio Amateurs League (ORAL) held recently at the Holiday Inn Manila's Embassy Foyer.

Dr. Tony Lazatin, vice-president of the Philippine Amateur Radio Association (PARA), was guest speaker and inducting officer.

ORAL, a group of radio enthusiasts composed of Filipino and Chinese professionals and businessmen, is affiliated with the PARA, and is now in its first year of existence.

Inducted into office by Dr. Lazatin in simple ceremonies were: Ramon Francisco, president; Jun de Guzman, executive vice-president; Simon Li, internal vice-president; Butch S. Murillo, treasurer; Willie Ranaga, secretary; Fred Delloso, PRO; Ramon Salta, executive director; Yu Keng Wi, trustee; and Cristy Manalo, director.

For this year, ORAL projects lined up for implementation, as announced by its president, Mr. Francisco, are: a) putting up of repeater to possibly establish a nationwide linkage with other amateurs from the different radio districts, b) conducting seminars to help clean the amateur airwaves of bootleggers, and c) community service involvement through various civic action missions. ♦

lowship and friendship; test propagation principally on the Ultra High Frequency (UHF); as well as promote the 40-meter band for recently licensed enthusiasts.

To achieve these goals, the contest had four categories, these were: single operator base/mobile/portable station; club/multi operator base station; single operator DX station (special call sign); and club/multi operator DX station.

Three operating bands were utilized for the purpose. High Frequency (HF) was limited on 7.000 to 7.100 mHz exclusively for SSB and CW while Very High Frequency (VHF) and Ultra High Frequency (UHF) had 144.000 to 146.000 mHz and 430.000 to 440.000 mHz, respectively, as operating modes.

Contestants vied for the following awards: top scorer single base station operator; runner-up, single station operator; third place, single base station operator; top scorer multi operator base station; top scorer single operator DX station; top scorer multi operator DX station; certificate of award for stations which worked all call areas; trophy for the longest haul on VHF; trophy for the longest haul on UHF; and trophy for the most number of CW contacts.

In Northern Mindanao, Ham X, Inc. also had its Field Day the entire May 5. Venue of the affair was Golden Village Subdivision in Cagayan de Oro City. Charter presentation and induction of the club's 1984 set of officers followed the Field Day on May 6. The event was held at the Ororama Restaurant at six thirty in the evening. ♦

PARA LAUNCHES 3rd ANNUAL DX COMPETITION

More Prizes at Stake

Long distance contact (DX) inclined hams in the country once again had the opportunity to see action as the third Philippine Amateur Radio Association (PARA) annual DX contest reeled off last May 19.

The contest which had at least ten awards at stake formally opened at one o'clock of said date and wound up at one o'clock on May 21. It was open to all licensed amateur radio stations in the country.

It was aimed to provide a venue for all licensed amateur radio operators to establish two way contacts in the form of a contest to generate fel-

**Radio Amateur Club
of Oriental
Negros, Inc.
(RACONI)
DISTRICT VII**

Amateur Radio.
Our pages define it.
Clearly. Simply.
Readability.
Our business.
THE AMATEUR
RADIOWORLD
delivers.
Read THE AMATEUR
RADIOWORLD,
the only Ham Philippine
Magazine.

SUBSCRIPTION COUPON

The Amateur Radioworld
P.O. Box 76
Legazpi City
Gentlemen:

.....
(Date)

Please send me THE AMATEUR RADIOWORLD Magazine
for 6 months 1 year. I enclose the appropriate remittance
made payable to THE AMATEUR RADIOWORLD.

NAME

COMPANY

PROFESSION

LINE OF BUSINESS

ADDRESS/TEL. NO.

SIGNATURE

(Please print all needed information)

*Amateur Radio. Our pages
define it. Clearly. Simply.*

Readability. Our business.
THE AMATEUR RADIO WORLD
delivers.

Read **THE AMATEUR RADIO-**
WORLD, *the only Ham Philippine*
Magazine.

NOTE DROP IN AMATEUR RADIO PERMIT GRANTS FOR CY 1983

The National Telecommunication Commission's licensing activities last year was marked by a significant increase in permits for radio station construction and licenses issued for government radio stations on one hand, and a general decrease in the number of permits for other categories on the other.

Permits issued for radio station construction increased 125% from 2,168 in 1982 to 4,885 in 1983. Licenses for government stations also increased 43.22% from 796 in 1982 to 1,140 the following year.

The general trend, however, was a drop in the number of radio station licenses issued for various categories. Data from NTC showed decreases in the number of licenses issued for the following: ship stations (47.3%), aircraft stations (31.25%), fixed aeronautical stations (100%), coastal stations (11.11%), land base stations (31.84%), land mobile stations (5.01%), amateur stations (37.53%), radio training school stations (38.46%), citizens band stations (74.34%), and various permits and certificates issued (51%).

Moreover, due to gas and oil limitations, NTC inspection of radio stations had been limited only to specific areas where it was urgently needed. NTC said the number of stations inspected last year decreased 7.63%, while the number of stations monitored increased 4.69%. ♦ *Business Day*

FCC FREES US HAMS FROM ROUTINE LOGS

The Federal Communications Commission (FCC) recently eliminated routine station log requirements for the American Amateur Radio Service and made several related changes in its rules.

The Commission said the changes would eliminate most of the record-keeping burden previously placed on amateur operators. It estimated that the 413,000 licensed amateurs in the U.S.A. would save more than 300,000 hours annually. The 7,000 to 9,000 amateur operators of repeater stations who ordinarily tape record their third party messages to satisfy the logging requirements will be relieved of that substantial burden and expense.

There is no official need for a record of routine station activities, the FCC observed. It also noted that it rarely used the information recorded in amateur logs, preferring to rely instead on data collected by monitoring. The FCC on its own initiative proposed the new rule more than a year ago.

The changes permit the amateur licensees to keep the few records which the FCC will continue to require in any format that can be made readily available to the agency. Those records primarily concern repeater and auxiliary operation and operation by remote control.

The Commission removed a number of implied operational requirements from the logging rules and placed them in the amateur rule sections to which they apply. It also authorized the Engineer-in-Charge of FCC field facilities to require specific individual station licensees to maintain a record of their station operations for enforcement purposes.

Nothing in the rule changes, the FCC noted, would prevent an amateur licensee from maintaining a station log or including in it any information the licensee chooses to keep. ♦

Ilocandia Amateur Radio League, Inc.

DISTRICT III

The Chinatown Amateur Society

DISTRICT I

Metro Manila Philippines

LET THE AMATEUR RADIOWORLD KNOW WHAT YOU DO IN AMA- TEUR RADIO; MANY OTHERS WILL BE INTERESTED IN YOUR EXPERIENCES.

JAMMING UPDATE

On December 10, 1983, millions of Polish listeners to VOA and other Western broadcasters heard Mrs. Lech Walesa accept the Nobel Peace Prize in Oslo on behalf of her husband. VOA Polish, Estonian, Latvian and Lithuanian programs are all currently jammed on shortwave. But on that day, the interference took a new twist: VOA Polish broadcasters on 1197 kHz medium wave were suddenly jammed by a combination of noise generators and the signal of Radio Warsaw, which normally operates on 1206 kHz. BBC Polish medium wave signals received the same treatment. The medium wave interference lasted one day against VOA and two against BBC. Shortwave jamming still continues. ♦ *VOICE*

PEAKS...

1923.—On Mar. 2, L. A. Hazeltine (Stevens Institute of Technology) presented a paper before the Radio Club of America on tuned radio-frequency amplification with neutralization of capacity coupling. Professor Hazeltine was granted a patent for the non-radiating neutrodyne receiver.

Great progress was made during the year in the development of vacuum tubes.

Short wave lengths were used to greater advantage than heretofore.

The McMillan expedition to the polar regions had radio for their only means of direct communication. Using low power and short wave lengths their vessel, *Bowdoin*, communicated with several stations in the United States while they were frozen in thousands of miles away. Broadcasting concerts from United States stations were heard during the long dark nights of the arctic zone.

During the year foreign countries became interested in radio-telephone broadcasting.

Broadcasting in United States heard in England, and *vice versa*.

1924.—In January radio was used in the region of the Great Lakes during a blizzard for dispatching trains.

An expedition from the United States, under the leadership of Hamilton Rice, which will explore the Amazon and Orinoco Rivers in Brazil and Venezuela in the interest of geographical science in general, will have radio as their only means of communication.

On Feb. 5 a radio program broadcast in the United States from Pittsburgh station of Westinghouse Electric Manufacturing Co. was received and re-broadcast in England for the benefit of English stations.

On Feb. 23 a concert broadcast by the same station and relayed from London was heard clearly in Calcutta, India.

Roger Babson, economist, estimates that during this year the American people will spend approximately \$350,000,000 for radio equipment. Sales of radio equipment are running nearly twice as large as all kinds of sporting goods.

A wireless lighthouse has been set up on an island in the Firth of Forth, Scotland. Wireless waves are concentrated by reflectors into a beam which

can be sent 100 miles, giving ships their position in a fog.

1925.—Considerable progress was made in working with short waves. Several transoceanic stations were operating at great distances on wave lengths varying from 22 to 103 meters.

In an experiment between the Hastings (Neb.) station and the East Pittsburgh (Pa.) station, it was demonstrated that a 64-meter wave could be picked up, and by placing it on a short transmission line to the transmitting station, increasing the strength of the signals to their original power or greater, if necessary, the amplified wave could be transmitted onward. This experiment showed that repeater stations can be constructed in different parts of the world and be fairly certain of transmitting a strong signal.

A number of short-wave transmissions were made by East Pittsburgh (KDKA) transmitting to South Africa and Australia. During July programs were broadcast to the American naval fleet in Australian waters.

Radio-compass (direction finder) came into greater use on board vessels. Over 100 American vessels were equipped. The Lighthouse Service, Department of Commerce, established several new radio fog-signal stations on all coasts of the United States.

The practical use of the telephone and radio for the transmission of photographs was more clearly demonstrated during the year.

As a means of eliminating interference, the transmitters of high-powered broadcasting stations were moved to the outlying districts of several large cities, the studios remaining in the cities.

Broadcasting programs were sent from airplanes in few instances.

A high-powered broadcasting station was established at Bound Brook, N. J., for transmission of programs to Europe. This station was equipped so as to use as high as 50 kilowatts.

One of the large electrical companies conducted experiments to determine the characteristics and peculiarities inherent in the piezo (quartz) crystals. Several stations are now using this kind of crystal to maintain a constant frequency thus eliminating to a great extent the "beat notes" caused by two stations heterodyning at an audio-frequency.

1926.—During this year directional or beam transmission developed to a point where it was practical for commercial purposes.

Successful radiotelephone experiments were conducted between New York and London.

With the development of transmitting pictures by radio it is now practical to transmit weather maps to vessels at sea.

Considerable progress was made in the perfection of receiving sets. The single-dial receiver came into greater use for reception of programs from broadcasting stations.

Commercial pictoradiogram services were in operation between New York and London and between San Francisco and Hawaii.

At the close of the year, about 300 merchant vessels of this country were equipped with the radio compass (direction finder). A very large number of naval vessels are also equipped with this apparatus.

Radiotelephone was used for the first time in directing the filming of a naval scene, off the coast of California, for a photoplay.

During the year successful development of a wireless system for controlling fog signals from unattended light-houses and beacons marked a great advance on the automatic or semi-automatic systems for starting and stopping acetylene fog-signal guns by wireless impulses.

Successful experiments were conducted for synchronizing two or more stations in order that simultaneous operation on the same wave length without interference may be accomplished during the year.

1927.—Transatlantic radiophone service was opened to the public in January.

In April the experimental radio station of the Bell Telephone laboratory at Whippany, N. J. (3XN), was successfully used in a public demonstration of television; the facial expression and voice of a speaker were seen and heard in New York distinctly and at the same time.

Radio was used in connection with the floods in the Mississippi Valley during the spring and New England during the fall, when other means of communication were inoperative or inaccessible.

During WW II, thousands of skilled amateurs contributed their knowledge to the development of secret radio devices, both in government and private laboratories. Equally as important, the pre-war technical progress by amateurs provided the keystone for the development of modern military communication equipment.

In June, radio was used for the first time by an airplane in crossing the Atlantic Ocean from the United States to France.

Receiving vacuum tubes with filaments heated from alternating current were introduced.

Beam transmission on short waves increased considerably during the year.

Broadcasting stations WBZ at Springfield, Mass., and WBZA at Boston, Mass., were regularly operated simultaneously in absolute synchronism, the wave length of the transmitter at the Boston station being automatically controlled by the Springfield transmitter so that any variation at Springfield will create a similar variation at Boston, assuring absolute synchronism at all times. Experiments were conducted for the synchronization of two or more transmitters by *radio control* instead of by wire.

The U.S.S. *Kittery*, experimenting with a radio compass during hurricane weather, found that the intensity of static may be useful in detecting and locating storms at a considerable distance.

The experimental station of the General Electric Company at Schenectady, N. Y., call signal 2XAG, in experiments used a vacuum tube of 100,000-watt power.

The Department of Commerce began the installation of directional radio beacons for use in aviation. Two-way communication experiments between a plane and the ground were carried on with considerable success.

1928.—On January 26, the broadcasting station WEAJ, using its regular wave length, publicly demonstrated for the first time the broadcasting of photographs by radio and the reception of the pictures on a small device attached to an ordinary radio receiver in the home.

1929.—On May 1, two-way communication between the air and ground was effected in a test made by the Bell Telephone Laboratories and the Western Electric Company in co-operation with reporters from several New York papers. A radio-equipped monoplane was used, taking off from Hadley Field, New Jersey. The connection between the airplane and the newspaper offices was established by the ground station at Whippany, New

Jersey.

1930.—On March 11 the longest talking circuit on record was established when persons in Schenectady, N. Y., talked with Rear Admiral Richard E. Byrd at Dunedin, New Zealand, after the Byrd expedition returned from the Antarctic.

The voice of the Schenectady speakers were carried direct to Dunedin, 9,320 miles, by W2XAF, a short-wave station of the General Electric Company. The voice of Rear Admiral Byrd reached the United States through an elaborate hook-up which involved the use of land wires, submarine cable, a long-wave broadcast transmitter, and a short-wave transmitter. From Dunedin the voice was carried by land wire and cable to Wellington (New Zealand), a distance of 500 miles. At Wellington, Station 2YA, operating on 420 meters, carried the voice 1,200 miles to Sydney (Australia), where 2ME, the short-wave station of the Amalgamated Wireless Australasia Limited, rebroadcast the signal direct to the receiving laboratory of the General Electric Company, 8 miles outside of Schenectady, in Glenville, New York. ♦

PROFESSIONALS ACTION FOR CIVIC ENDEAVORS, INC.

DISTRICT I

Metro Manila

Philippines



INTERVIEW



"OUR SYSTEM STILL WORKS"

Engr. Leonardo Garcia



Engr. Leonardo Garcia left, with Associate Editors Gerry Y. Bongalon, DW4AT right, and Alfie Camua-Sy.

Engr. Leonardo Garcia was one of the NTC Examination Committee members fielded by the agency to administer the amateur radio operators' test last April 14 at the Bicol University Little Theatre, Daraga, Albay where some 400 amateur radio enthusiasts trooped to try their luck for a Class C license.

Together with Atty. Cathlyn Heceta and Atty. Aurellano Cordero, these NTC personnel proceeded to perform their task with professional dispatch.

The Amateur Radioworld editorial staff voted to select from this committee one who would be this month's interviewee. Engr. Garcia pooled the highest number.

Pre-interview sessions with the kind engineer revealed that he is possessed with a keen awareness of contemporary as well as historical events. He has that enviable sort of loyalty to the office he represents and most of all a flaming hope for the rapid development of amateurism in the country.

Engr. Garcia was born in Taal, Bungkal, Bulacan on August 24, 1923. "...that was the time of Leonard Wood. I became his namesake... Leonard Wood was very popular then."

His younger years hold very fond memories... his honor-years in the elementary grades, the secondary which then called for 7 years of hard work but which he did within three years only (acceleration, he claims). He had in company, during those days, Teodulo Natividad, Armando Caparas, others who are now successful, popular personalities. On the other hand, he joined the Radio Control Office "...in 1954, after passing the board for electrical engineers which I finished in MAPUA. The RCO became TCB then NTC and I'm still here."

The administration of examinations for amateur radio license applicants have its legal bases. Some of these can be found under Department Order No. 13 and the Revised Amateur Radio Regulations. What could now be the differences in the mode or content of the NTC examinations being given for this service?

Under Department Order No. 13 examinees were to hurdle Element C which has much to do with radio laws, Element B which covers amateur radio theories and Element A which deals with Morse Code. In the revised regulations these have somewhat been altered. We find Element 1 which covers Morse Code, Element 2 — amateur laws, Element 3 — amateurs principles of electronics and electricity. And another element has been added: 4 — which is exclusive for Class C license applicants. Element 4 would deal with operating practices. The new regulations would also add Elements 5, 6 and 7 to be passed by applicants for Class B while for Class A applicants Elements 8, 9 and 10 and upwards have become requirements.

On the other hand, there are some similarities. For instance, both Department Order No. 13 and the new regulations would allow a successful Class C examinee to immediately take the examinations for Class B. Meanwhile, for a Class B licensee to obtain his Class A license, he'll have to wait for one year to lapse.

One of the most common complaints of hams is the delay in the release of examination results. It is claimed that releases even take almost half a year. Could this be explained?

There, indeed, are delays. In fact, delays often take three to five months and this is not only true to the amateur service. These delays often affect much more those in the commercial radio service simply because they are the most numerous.

There are instances when both the examinations for amateurs and commercial radio operators coincide on the same date. When this happens patience on all sides becomes very important. It is the policy of the Radio Operator's Examination Committee to work by the "first come, first served" principle. One can imagine the volume of examinations we give monthly and, of course, the number

(Page 33 pls.)



OPTIONAL ACCESSORIES



BO-9A SYSTEM BASE

The BO-9A provides a power supply for the memory back-up in the TR-9130 transceiver, manual stand-by switch for CW operation, head-phone jack and AC outlet.



SP-120 EXTERNAL SPEAKER

The SP-120 is a good looking compact speaker matching the TR-9130 styling and is designed for fixed station use. A low distortion speaker unit provides clear reproduction.



BC-1 AC ADAPTOR

This AC adaptor is used as a memory back-up power supply when the main power supply is off for extended periods.



MC-46 16-BUTTON AUTOPATCH UP/DOWN MICROPHONE

The MC-46 is an autopatch microphone. It features a 16 key autopatch encoder and frequency UP and DOWN switches.



SP-40 COMPACT MOBILE SPEAKER

Very small, high-quality mobile speaker, which can be mounted virtually anywhere. A ferrite magnet built into the mounting bracket holds the speaker to any ferrous metal surface, or to the adhesive-backed steel plate supplied.



MC-40S UP/DOWN MICROPHONE

The MC-40S is a spare microphone for the TR-9130.



MC-60 (S6) 50kΩ/500Ω DELUXE DESK-TOP MICROPHONE

The MC-60 microphone is designed expressly for use with your amateur communication system. The zinc die-cast base offers high stability, and is complete with a feather-touch PTT switch and rocker UP/DOWN switch.



PS-30 DC POWER SUPPLY

Supplies regulated 13.8 V DC at 20A intermittent load with complete ease and safety due to the use of large heat sinks and an automatic reset electronic overload trip.

TR-9130 SPECIFICATIONS

[GENERAL]

Frequency Range: 144.000.0 ~ 147.999.9 MHz
Mode: F3(FM), A3J(SSB), A1(CW)
Frequency Stability: Within ± 500 Hz during the first hour after 1 minute of warmup.
Within ± 50 Hz any 30 minutes.
Power Requirement: 13.8 V DC $\pm 15\%$
Grounding: Negative
Operating Temperature: $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$
Current Drain: 0.7 A in receive mode with no input signal
5.5 A in HI transmit mode
2.7 A in LOW transmit mode
Less than 3.0 mA for memory back-up

RF Output Impedance: 50 Ω
Dimensions: 170(6.8)W \times 68(2.7)H \times 241(9.6)D mm(inch)
Weight: 2.4 kg (5.3 lbs.) approx.

[TRANSMITTER]

RF Output Power: HI (FM, SSB, CW) = 25 W
LOW (FM, CW) = 5 W approx.
Modulation: FM = Reactance Direct Shift
SSB = Balanced Modulation
Frequency Tolerance: FM = Less than $\pm 20 \times 10^{-6}$
SSB = Less than $\pm 10 \times 10^{-6}$
Spurious Radiation: HI = Less than -60 dB
LOW = Less than -53 dB

Carrier Suppression: Better than 40 dB
Unwanted Side Band Suppression: Better than 40 dB
Maximum Frequency Deviation (FM): ± 5 kHz
Microphone: UP/DOWN Dynamic Microphone with PTT switch, 500 Ω

[RECEIVER]

Circuitry: FM = Double Conversion
Superheterodyne
SSB, CW = Single Conversion
Superheterodyne
Intermediate Frequency: 1st IF = 10.695 MHz (FM, SSB, CW)
2nd IF = 455 kHz (FM)
Sensitivity: FM = Better than 0.25 μV for 12 dB SINAD
Better than 1 μV for 35 dB S/N
SSB, CW = Better than 0.25 μV for 10 dB S/N
Selectivity: FM = Less than 24 kHz (-60 dB)
SSB, CW = More than 2.2 kHz (-6 dB)
Less than 4.8 kHz (-60 dB)
Spurious Radiation: Better than 70 dB
Squelch Sensitivity (FM, SSB, CW): Less than 0.16 μV (threshold)
Auto Scan Stop Level: Less than 0.2 μV
Audio Output Power: More than 2.0 W (10% distortion, 8 Ω loading)

Note: Circuit and ratings may change without notice due to developments in technology

A product of
TRIO-KENWOOD CORPORATION
17-5, 2-chome, shibuya, shibuya-ku Tokyo 150, Japan

TRIO-KENWOOD COMMUNICATIONS
1111 West Walnut Street, Compton, California 90220, U.S.A.
TRIO-KENWOOD COMMUNICATIONS, GmbH
D-6374 Sinsheim, TS Industriestrasse 8A, West Germany
TRIO-KENWOOD ELECTRONICS, N.V.
Leuvensteenvoeg 504, B-1930 Zaventem, Belgium
TRIO-KENWOOD (AUSTRALIA) PTY. LTD.
4E Woodcock Place, Lane Cove N.S.W. 2066, Australia



YAESU

THE NAME TO TRUST FOR ENGINEERING EXCELLENCE FOR UP-TO-DATE AND ADVANCE 2-WAY COMMUNICATIONS...

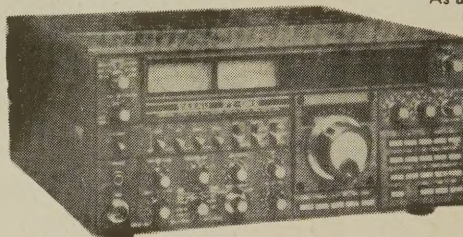
ALL TYPES OF COMMUNICATION EQUIPMENTS & SYSTEMS

COMMERCIAL-USE TRANSCEIVERS FOR DEPENDABLE HF/VHF/UHF COMMUNICATIONS

Communication is the key to getting ahead in today's high-technology world. Whether your colleagues are in the community making deliveries, or hundreds of kilometers away in a remote outpost, YAESU HF, VHF, and UHF radios meet your requirements with ease.

ALL MODE SOLID STATE GENERAL TRANSCEIVER

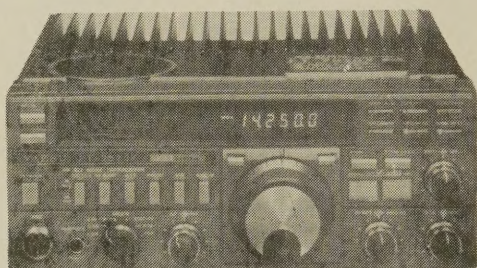
As a fruit of a revolutionary project in our Research and Development laboratory for the last few years, YAESU now unveils the Super Radio. The latest solid state technology and bold breakthroughs in engineering and design are now brought together for the first time in one incredible unit; giving you total operating control, unsurpassed performance and a new standard of quality blended together with classical harmony. Join us as we examine this bold adventure in engineering ... the FT-ONE from YAESU!



FT-ONE

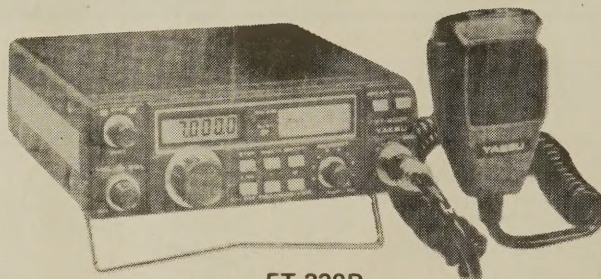
YAESU FT-757GX

General Coverage — ALL MODE



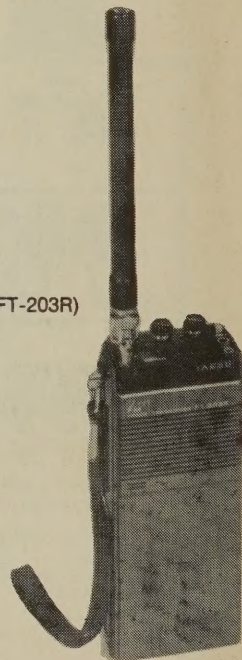
FT-230R HIGH POWER, FULL FEATURE, COMPACT 2-METER FM TRANSCEIVER

The FT-230R utilizes the latest breakthroughs in micro-electronics to bring you unbelievable flexibility coupled with very simple operation and a full 25 watts output. Its so small and yet nothing has been left out.



FT-230R

YAESU — (FT-203R)



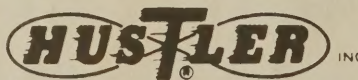
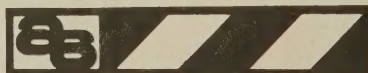
ALSO A DISTRIBUTOR OF THE FOLLOWING:

**phelps
dodge**
Communications Company

MICROLOG



MIRAGE
COMMUNICATIONS EQUIPMENT



ALPHA

KLM



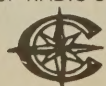
CALL: 78-34-52

EDGARDO S. SILVERIO, DU1SS
Pres. & Gen. Manager

77-37-71 to 74

MFTRs OF RADIO COMMUNICATION CRYSTALS FOR VHF & SSB RADIO TRANSCEIVER.

Exclusive Philippine Distributor



ORONA INTERNATIONAL

384 E. RODRIGUEZ SR. BLVD., QUEZON CITY, PHILIPPINES
CABLE ADDRESS: CORINTER o CODE USED: STANDARD